ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS

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Dedicated

to

my family

&

Teachers

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Dr. DIVJOT KAUR ARORA

LIST OF ABBREVIATIONS

DLQI- Dermatology Life Quality Index

CMI-Cell Mediated Immunity

KOH-Potassium Hydroxide

HRQoL- Health related Quality of life

QoL- Quality of life

SD- Standard Deviation

IQR- Inter Quartile Range

ANOVA-Analysis of Variance

IL-Interleukin

TNF-Tumor Necrosis Factor

DC-Dendritic cell

LC-Langerhans cell

IFN-Interferon

PCR-Polymerase Chain Reaction

MALDI-Matrix-assisted laser desorption/ionization

TOF-Time-of-flight analyzer

PAS-Periodic Acid Schiff

GMS-Grocott methenamine silver

ITS -Internal transcribed spacer

r-DNA-recombinant DNA

SJS-Stevens-Johnson Syndrome

CR-Complete Relief

PR-Partial Relief

NR-No Relief

BSA-Body Surface Area

ABSTRACT

Background: Dermatophytosis is a superficial fungal infection of skin, hair, and nails caused by dermatophytes. There has been a surge in cases of chronic and recurrent dermatophytosis recently. Chronic and recurring cases of dermatophytosis can indeed have a substantial negative impact on a patient's well-being, leading to physical discomfort, psychological distress, heightened financial strain, and diminished self-esteem. Despite the high prevalence of dermatophytosis, there are only a few studies that examine its effects on patients' quality of life (QoL).

Objective: To assess the quality of life in patients with chronic and recurrent dermatophytosis

Methods: A total of one hundred and fifty patients, age above 18 years diagnosed as cases of chronic and recurrent dermatophytosis attending the outpatient of Department of Dermatology, Venerology & Leprology of Dayanand Medical College & Hospital, Ludhiana were included. A detailed history was taken and examination findings were filled in a pre-designed proforma.

Results: Data of 150 patients was analyzed. The mean DLQI score was 12.18 ± 5.13 and the main domain affected was 'symptoms and feelings' followed by 'work and school'. 'Very large effect' on QoL was seen in 54% of the patients (DLQI score 11-20). Age and occupation were found to have a significant association with higher DLQI scores. Meanwhile, overall mean percentage Skindex-16 score was 67.44 ± 21.35. The most affected domain in Skindex-16 was that of 'Emotions' followed by 'Function' and 'Symptom'.

Conclusion: Dermatophytosis can lead to substantial impairment in quality of life, with symptoms such as itching, redness, and discoloration significantly affecting patients' daily activities, personal relationships, and emotional well-being. Moreover, factors such as age, gender, occupation, and previous treatment history were found to influence the extent of impairment experienced by patients. Multidisciplinary approach to treat patients with chronic and recurrent dermatophytosis including psychologists and psychiatrists should be undertaken.

Key words: Quality of life (QoL), Chronic and recurrent dermatophytosis, DLQI, Skindex-16.

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INTRODUCTION

Dermatophytosis, colloquially referred to as ringworm, is a fungal infection of keratin-containing tissues namely skin, hair, and nails. The layman's term "ringworm" is used due to the production of circular, red, ring-shaped itchy plaques characteristic of this infection. Dermatophytes, i.e., the fungi responsible for this condition, can be classified into different genera based on colony characteristics and microscopic morphology. These genera include – Trichophyton, Epidermophyton, Nannizzia, Paraphyton, Lophophyton, Microsporum, Ctenomyces, Guarromyces, and Arthroderma.[1] Additionally, based on their natural habitat, dermatophytes can also be categorized as anthropophilic (humans), zoophilic (animals) & geophilic (soil).

Chronic dermatophytosis refers to the persistence of the disease in patients for 6 months to 1 year, with or without recurrence, despite undergoing treatment. In contrast, recurrent dermatophytosis refers to the recurrence of the infection within 6 weeks after stopping adequate antifungal therapy, with at least two such episodes occurring within 6 months.[2]

The global prevalence of dermatophytosis is estimated to be around 20-25 %.[3] In India, estimates vary widely, ranging from 6.09%– 61.5% with lower percentages being reported in South India and higher rates in North India.[4,5] Recent studies conducted on chronic and recurrent dermatophytosis revealed the prevalence of chronic dermatophytosis, as reported by Singh *et*. in 2019 in a study conducted in Varanasi (North India), as 65.3% while that of recurrent dermatophytosis as reported by Rudramurthy *et al*., in 2018 in a study conducted in Chandigarh was 60 %.[6,7]

Dermatophytes, a group of filamentous fungi, possess the ability to break down keratin. To enhance their virulence, they produce an array of proteolytic enzymes. This biodegradative process involves sulfitolysis, during which disulfide bridges in keratin undergo extensive hydrolysis.

Dermatophytes then absorb the resulting degradation products and utilize them for their metabolism.

Cell-mediated immunity (CMI) is the primary factor in clearing the infection from the skin. It triggers an inflammatory response against the fungus, which leads to an increased turnover of the epidermal cells and shedding of stratum corneum.[2] The underlying mechanisms responsible for the chronicity and recurrence of dermatophytic infections remain poorly understood. Several factors contribute to chronicity including host-related factors, the agent, the environmental influences, and pharmacological aspects. [2] Over-the-counter available topical steroid-containing creams, prescription of antifungals for other skin conditions by quacks, and noncompliance with treatment regimens regarding dosage and duration are some of the factors leading to resistant fungal infection, thus prolonging the disease course.

The Clinical classification of dermatophytes is based on the location of the infection and can be summarized as follows –

- Tinea capitis- Infection of the scalp
- Tinea faciei- Infection of the face
- Tinea manuum- Infection of the palmar aspect of hands
- Tinea unguium- Infection of the nail bed
- Tinea barbae (Barber's itch or tinea sycosis)- Infection of the beard & moustache area
- Tinea cruris (jock itch)- Infection of the groins
- Tinea corporis- Infection of the glabrous skin of the body including trunk and arms
- Tinea pedis (Athlete's foot)- Infection of the skin of the feet

Dermatophytic infections are generally easy to diagnose based on their clinical presentation. However, sometimes due to the misuse of corticosteroids, the clinical picture can sometimes resemble other skin conditions such as contact dermatitis, psoriasis, or eczema, and in such

cases, confirmatory diagnosis can be performed with potassium hydroxide (KOH) mount (10-40 %). By examining skin scrapings under a microscope after treatment with KOH, physicians can identify characteristic features such as branching septate hyphae, which serve as a clinical marker for dermatophytosis.

The duration of treatment for dermatophytic infections varies based on the tissue involvement and is usually experience-based. General recommendations can be summarized as follows. Skin involvement requires treatment duration of 2-3 weeks, for hair infection 6 weeks, fingernail infection for 6 months, and toenail infection for about a year.

Dermatophytosis once underestimated and considered well-manageable with predictable outcomes, now poses significant challenges for dermatologists. Chronic and recurrent cases, prolonged treatment durations, and resistance to standard therapies cause significant distress to patients. Moreover, beyond the physiological aspects, the psychological impact on patients' well-being is generally overlooked. In recent decades, however, the concept of quality of life (QoL) has gained prominence both in society and among healthcare professionals. QoL is evaluated based on an individual's overall well-being and satisfaction with various aspects of their life, including physical and mental health, social relationships, personal achievements, and environmental factors. It encompasses both subjective feelings such as happiness, fulfillment, and contentment as well as objective indicators such as health status, economic stability, and access to resources and opportunities. Factors influencing QoL include personal experiences, cultural norms, socioeconomic status, and environmental conditions.[8]

The concept of 'Health-related quality of life' (HRQoL) is relatively new and was devised to uniquely assess the impact of disease and therapy on an individual's life based on their perception. Specifically, it considers patient's perception of their condition and how it impacts their decisions

regarding management of the disease, aiming to enhance both treatment outcomes and their QoL of life for the patient.[9]

Dermatophytosis can cause significant physical discomfort to patients due to symptoms like pruritus and burning. Additionally, other expressions of the condition such as skin discoloration and pigmentation lead to social embarrassment, reduced self-esteem and social timidity. These effects are generally more pronounced in females as compared to males. Moreover, the chronicity and recurrence of the condition, cause psychological distress to the patients. The financial burden of prolonged treatments, and regular hospital visits add up to the stress.

Impact on quality of life can be measured objectively by different methods including standard questionnaires. Various indices that can be used to measure impact on quality of life in patients with chronic and recurrent dermatophytosis include Skindex, Dermatology Life Quality Index (DLQI), Itch Severity Scale, Itchy QoL, and 5D-Pruritus scale.

Dermatology life quality index (DLQI) is a reliable scale to measure the extent to which a dermatosis affects the daily life of a patient.[10] It is a simple, self-administered questionnaire available in different languages. It consists of 10 questions that help to analyze the impact of the condition on different aspects of life.

Another index that we have used is Skindex-16. Skindex-16 is another brief method to measure quality of life as an outcome. It contains 16 questions regarding the effects on patient's quality of life. The questions are grouped into three categories based on symptoms (1-4), emotions (5-11) and functions (12-16). The benefit of skindex-16 is that it included the emotional component as well.[11]

The chronic and recurrent dermatophytosis has significant impact on the emotional and psychological well being of the individuals. While the studies on dermatophytosis are vast and continuously emerging, effects of this condition on quality of life have not been well explored. With this study, we aimed to address this gap by examining the impact of chronic

and recurrent dermatophytosis on individuals' quality of life using index DLQI and SKINDEX-16.

AIMS AND OBJECTIVES

To assess the impact on quality of life in patients with chronic & recurrent dermatophytosis using DLQI & Skindex-16.

REVIEW OF LITERATURE

In literary works, even though there are thousands of species of fungi that are known to exist, there are only a few that are pathogenic to human beings. Immunocompromised hosts become favorable hosts for non-pathogenic species. Identification and diagnosis of specific fungi species can be aided by morphological examination. Dermatophytosis is a superficial infection of the skin and other keratin-containing tissues caused by a group of filamentous fungi referred to as dermatophytes.

1. HISTORY OF DERMATOPHYTES

In 1835, Augustino Bassi discovered the microbial origin of the fatal ailment affecting silkworms (Bombyx mori). He unveiled that a specific mold, subsequently named Beauveria bassiana, was responsible for the disease observed in commercially bred silkworms. This marked the initial instance of implicating an organism as a causal agent for a disease.

All guidelines for dermatophytosis agree that dermatophytes proliferate on both the skin surface and scrap material. The resulting lesions that typically manifest as circular or ring-shaped patterns lend to the colloquial term “ringworm” for this condition. Remak, a Polish student at the University of Berlin uncovered rods and buds microscopically from a patient with tinea favosa. This observation provided the first scientific proof of the fungal etiology of dermatophytosis in 1837.

Later, Remak reported observing some “vegetables” in the hair of the favus patients and proved the condition infectious by infecting himself in 1940.[12] Remak named the causative agent to be *Achorion schoenleinii* in 1845 in honor of his professor, J. L. Schonlein, who helped him identify it.

David Gruby, unaware of Remak’s findings, cultured the causal agent of favus to fulfill Koch’s postulates. He presented his thesis in Vienna, Paris, and named the agent to be Microsporum audouinii after Victor Audouin, Director of the Museum of Natural History in Paris.

In 1890, Sabouraud began a systematic study of dermatophytes and grouped them into four genera: Achorion, Epidermophyton, Trichophyton, and Microsporum.

Wood's lamp, a first of its kind that could identify fungal diseases of hair was invented by Robert W. Wood in 1925. Later in 1934, Chester Emmons simplified the classification of dermatophytes into three genera based on spore morphology, namely, Trichophyton, Microsporum, and Epidermophyton.

In 1952, Van Breuseghem developed Hair-bait technique which was later used by Dawson and Gentles in 1959 to grow Trichophyton ajjelloi.

2. EPIDEMIOLOGY

The dermatophytosis has a global prevalence of 20-25 %.[3] In India, however, the infection rates are much higher because of the tropical climate that favors the growth of dermatophytes. What was once regarded as a harmless, easily manageable, common infection that mostly occurred in tropical and subtropical regions during summer and rainy seasons, has evolved into a persistent and challenging problem in India over the past decade, with significant increase observed in the past 5-6 years[13]. This increase can be regarded as an epidemic-like situation in the country.

3. INCIDENCE & PREVALENCE IN INDIA

The reported incidence rates of dermatophytosis in India vary widely, with estimates ranging from 6.09% [4] to 61.5%.[5] Studies based in southern India have found prevalence rates between 6.09% and 27.6%[14], while a notably higher prevalence of 61.5% has been documented in the North of India. There is also a consistent rise in the incidence of chronic, recurring, and relapsing dermatophytosis cases. It is becoming increasingly common to observe cases where the disease persists for months or even years. The burden of increased prevalence is compounded by chronic and recurring infections.

4. PATHOGENESIS

The pathogenesis of dermatophyte infection is an interplay between three factors – the fungi, the inherent host factors and the immune response mounted against the fungi.

4.1 FACTORS SPECIFIC TO FUNGI

These factors are species-specific and are not universal to all the species.

4.1.1 ADHESION

Adhesins present on the fungal cell walls help the fungi to adhere to the epidermis of the host within one hour.[15] After adhesion, germination occurs, and the hyphae rapidly enter the stratum corneum to avoid removal by cell turnover/shedding.[16] *Trichophyton mentagrophytes* are characterized by the presence of fibrils which facilitate adhesion and thereby prevent their elimination from the host tissue.

4.1.2 ENZYMES

Dermatophytes produce a wide range of enzymes including proteases, lipases, elastases, collagenases, phosphatases, and esterases, which help in host invasion and assimilation of nutrition.[17] Specifically, keratinases break down keratin and help the dermatophytes in invading the tissues and acquire oligopeptides for nutrition.

4.1.2 ADAPTATION TO pH CHANGES

Initially, the dermatophytes encounter an acidic pH at the site of infection. Proteases are maximally active at acidic pH conditions. As the metabolism continues, the degradation products shift the pH to the alkaline side leading to the upregulation of proteases that are active at alkaline pH facilitating survival of dermatophytes.

4.1.3 OTHER FACTORS

Some species like *Trichophyton rubrum* release glycopeptides that inhibit the proliferation of T lymphocytes which reduces the host immune response leading to chronic infections.[18]

4.2 HOST FACTORS

Skin provides a mechanical barrier against all superficial and deep infections, therefore a disrupted skin barrier can facilitate the invasion by infectious agents. Barrier damage can occur after itching, and violent scratching secondary to conditions like atopy, ichthyosis, xerosis, etc. Extensive and invasive infections have been reported in patients with conditions

such as atopic dermatitis, diabetes, hepatitis B and C-related cirrhosis, alcoholic liver disease as well as in patients on hemodialysis for renal failure, and patients on immunosuppressants/modulators.[19,20]

4.3 IMMUNE RESPONSE

4.3.1 ROLE OF KERATINOCYTES

Keratinocytes produce a variety of cytokines, in an attempt to kill the invading dermatophytes such as interleukin (IL)-8, TNF (tumor necrosis factor)-α, IFN (interferon)- γ, IL-1ß, IL-22 and IL-16 to destroy dermatophytes.[21] Keratinocytes also release antimicrobial peptides like cathelicidins and defensins which might have antifungal activity as well.[22]

4.3.2 INNATE IMMUNE RESPONSE

Dendritic cells (DCs) and Langerhans cells (LCs) in the epidermis assist in presenting the antigen from dermatophytes to CD4+ T cells, promoting their proliferation and secretion of IL-4, IL-10, and IFN- γ cytokines. Macrophages on the other hand help in killing the fungus or undergo self-destruction if they are unable to do so. Neutrophils also help eliminate the fungus from the skin by lysing the agent intra or extracellularly.[23]

4.3.3 ADAPTIVE IMMUNE RESPONSE

Both cell-mediated immunity (CMI) and humoral immunity help in eradication of the fungus from the skin. Th1-type CMI mainly clears the fungal agent while the Th2 response can make an individual more prone to infection or trigger allergic reactions. Th1 activation leads to increased production of IFN- γ and triggers phagocyte stimulation Th-2 activation makes more IL-4, 5, and 13. Initially, IL-10 levels are high which have an

inhibitory effect on Th-1 type response and a stimulatory effect on Th-2 type response. With time, levels of IL-10 start falling with a consequent elevation in the levels of IFN- γ. Th-17 response through the secretion of IL-17 promotes the Th-1 pathway. IL-17A also helps in activating neutrophils and stimulating defensins' secretion, thus having a role in innate immunity as well.[24,25]. Both Th-1 and Th-17 type responses are aimed at getting rid of infection. Rai et al., demonstrated increased expression of T-reg and Th-17 in the peripheral blood of patients with chronic skin dermatophytosis, thereby, suggesting a role of CMI in long-term infections.[26]

5. CAUSATIVE ORGANISM

The term "tinea" originates from a Latin word meaning "moth" or "worm," referring to the serpentine, circular, or ring-like cutaneous lesions caused by dermatophytes, resembling the burrowing of a worm at the lesion's edge. Referring to dermatophytes as "skin plants" is a misnomer, as fungi are not taxonomically related to plants.[27] Dermatophytes are hyaline septate molds belonging to nine different genera: Trichophyton, Epidermophyton, Nannizia, Paraphyton, Lophophyton, Microsporum, Arthroderma, Ctenomyces, and Guarromyces.[1] However, the ones that predominantly infect humans belong to the four genera of Trichophyton, Microsporum, Epidermophyton, and Nannizzia.

5.1 TAXONOMY OF DERMATOPHYTES

Kingdom: Fungi

Phylum: Ascomycota

Class: Eurotiomycetes

Order: Onygenales

Family: Arthrodermataceae

Genus: Arthroderma

Based on their habitat, dermatophytes can be classified into anthropophilic, zoophilic, and geophilic (Table 1). Anthropophilic dermatophytes are mainly transmitted from person to person and usually

result in chronic infections with moderate clinical symptoms; zoophilic dermatophytes prefer specific animal hosts but can also infect other species normally and geophilic dermatophytes thrive on keratinized waste found in soil and are seldom pathogenic (Table 2), yet they can induce more pronounced inflammation compared to anthropophilic species.[28]

Table 1: Classification of dermatophytes based on habitat

Category	**Mode of transmission**	**Severity of inflammation**
Anthropophilic	Human to human	Mild inflammatory/Chronic
Zoophilic	Animal to human	Intense inflammation (pustules and vesicles possible), acute
Geophilic	Soil to human or animal	Moderate inflammation

Table 2: Different species of dermatophytes based on habitat

Anthropophilic	Zoophilic	Geophilic
Trichophyton mentagrophytes var interdigitale	Trichophyton mentagrophytes var mentagrophytes	Microsporum gypseum
Trichophyton rubrum	Microsporum canis	Microsporum cookei
Trichophyton concentricum	Microsporum canis var. distortum	Microsporum persicolor
Trichophyton interdigitale	Microsporum gallinae	Nanizzia gypseum
Trichophyton schoenleinii	Microsporum nanum	Nanizzia nanum
Trichophyton soudanense	Microsporum persicolor	Nanizzia fulvum
Trichophyton tonsurans	Trichophyton equinum	Nanizzia praecox
Trichophyton violaceum	Trichophyton simii	Trichophyton vanbreuseghemii
Epidermophyton floccosum	Trichophyton verrucosum	Trichophyton eboreum
Microsporum audouinii		Trichophyton terrestre
Microsporum ferrugineum		Epidermophyton stockdaleae

5.2 SPECIES OF DERMATOPHYTES

Trichophyton species can infect skin, hair and nails, while Microsporum species have a predilection for skin and hair and do not infect nails and Epidermophyton species only infect skin and nails but not hair. The morphology of microconidia and macroconidia can help to differentiate the

species of dermatophytes. Certain other fungal agents can also infect skin, hair, and nails, and the resulting conditions are collectively known as non-dermatophytic infections of skin.

5.2.1 TRICHOPHYTON

Trichophyton species exhibit both microconidia and macroconidia. The macroconidia are 8-86 in number, 4-14 µm in size and have 1-12 septa. They are thin, smooth-walled, cigar or pencil-shaped with blunt ends. Microconidia are found abundantly and are predominantly spore forms, arranged singly or in clusters along hyphae or borne on conidiophores.

5.2.3 MICROSPORUM

Microsporum is the causal agent for various dermatophytosis, including tinea capitis, and tinea corporis. The predominant conidial form in Microsporum species is macroconidia which are 6-25 in number, large, rough-walled, hyaline, multi-septate, variable in form, spindle-shaped to obovate with 6–160 µm in size. Microconidia are rare and if produced, are single-celled, smooth-walled, hyaline, pyriform to clavate with size of 2.5–3.5 x 4–7 11µm.

5.2.4 EPIDERMOPHYTON

Epidermophyton species produce both microconidia and macroconidia. Macroconidia are one to nine-celled, with usually smooth, thin to fairly thick walls, pear or club-shaped, 20-60 in number, 4-16 µm in size and are arranged in clusters. Microconidia are usually not present unlike Trichophyton and Microsporum.

5.2.5 NANNIZIA

Nannizia includes the sexual stages of certain dermatophytes. Nannizia shows abundant polymorphic microconidia and macroconidia. The macroconidia in nannizia are borne on short conidiophores, moderately thick-walled, cylindrical, clavate, or ellipsoidal, with a rounded tip and tapered base and the microconidia are either sessile or short-stalked.

6. SOURCES OF INFECTION

Infection can be acquired from fellow infected humans, animals, and soil. Both zoophilic and geophilic varieties engender a higher extent of inflammatory response compared to anthropophilic species.

Dermatophytes can survive externally on towels, bedding, clothing and therefore infect other people through them.

7. CLINICAL FEATURES

Different clinical presentations are observed in dermatophytosis based on the site of involvement, etiological agent, and host immune response. (Table 3,4)

Table 3: Different clinical presentation based on site of involvement

BASED ON SITE OF INVOLVEMENT
• Tinea Capitis Inflammatory: Kerion, Favus Non inflammatory: Black dot, Grey patch • Tinea Corporis • Tinea Cruris • Tinea Faciei • Tinea Barbae • Tinea Manuum • Tinea unguium • Tina Pedis Acute ulcerative type Chronic hyperkeratotic type Interdigital Vesiculo-bullous type

Table 4: Different types of clinical presentations

BASED ON PRESENTATION
• Tinea incognito • Tinea imbricata • Tinea pseudoimbricata • Erythrodermic tinea • Majocchi's granuloma • One hand two feet syndrome • Trichophyton rubrum syndrome • Deep dermatophytosis • Dermatophytid reactions

7.1 Tinea Corporis

Tinea corporis presents as red, raised, circular lesions with scaling over the glabrous skin of the body. The main etiological agents responsible for this condition include *Microsporum canis*, *Trichophyton tonsurans*, *T. verrucosum*, *T. mentagrophytes*, and *T. rubrum*. In India, studies indicate that T. rubrum was the most common agent until 2015 after which *T. mentagrophytes/ T. interdigitale* became more prevalent.[29]

7.2 Tinea cruris

Tinea cruris, also called jock's itch, represents infection of the groins. It is especially difficult to treat because the groin area stays consistently moist. It commonly affects players and athletes. This condition clinically presents with erythematous, raised, sharply demarcated lesions with scaling and clearing in the center, and symptoms such as burning and pruritus.[30] Sometimes, the expanding border of the lesion may show the development of follicular papules or pustules which indicate secondary infection with bacteria or yeast. Acute dermatophyte infection of groins presents as macerated, moist exudative lesions with an eczematous appearance while chronic cases show presence of dry lesions with little

scaling. Post-inflammatory hyperpigmentation after treatment of infection is often a concern among patients. Common predisposing factors for tinea cruris include moisture, low hygiene, high temperatures, and tight-fitting clothes.

7.3 Tinea capitis

Tinea capitis also known as herpes tonsurans, is an infection of the scalp hair [31] and can present as both inflammatory or non-inflammatory forms. The former type includes Kerion, favus and agminate folliculitis while the latter type includes black dot, seborrheic dermatitis type and grey patch. It mainly affects children and is primarily caused by species *Trichophyton* and *Microsporum spp.* Non-inflammatory forms heal without any scarring alopecia. Kerion presents with boggy, tender swelling on the scalp and a secondary infection process leads to scaling, exudate, and scarring alopecia. Systemic treatment with oral antifungals is needed to treat tinea capitis as topical therapies are ineffective.

To summarise, Tinea capitis can be of the following types-

a) Non-inflammatory: Black dot, grey patch types

b) Inflammatory: Kerion, favus

c) Based on patterns of invasion: Ectothrix, endothrix

7.4 Tinea Barbae

Dermatophytosis of the hair-bearing areas of the face is known as tinea barbae. This type is exclusive to boys and men. It was once believed that unsanitary razors used by the barbers help spread this infection, which is why it was also called barber's itch and beard ringworm.[32] Only anthropophilic and zoophilic species are known to cause this condition.[33] and its manifestations are similar to that of tinea capitis.

7.5 Tinea faciei

Tinea faciei represents infection of the non-hair-bearing part of the face. It is often diagnosed late in the course because the clinical manifestations are atypical and misdiagnosis and mistreatment complicate the condition. The common agents known to cause this infection include *Trichophyton*

mentagrophytes complex, *Trichophyton rubrum* by *Microsporum canis*, and *Microsporum gypseum*. It affects females more commonly than males.[34] Patients maybe misdiagnosed as having eczematous dermatoses and given topical corticosteroids which make the lesions even harder to recognize. A simple KOH smear from any red, itchy lesion can help make a conclusive diagnosis and should be considered before treating such lesions.

7.6 Tinea pedis

Tinea pedis, also referred to as athlete's foot is dermatophytosis of the plantar surface of the feet and toe webs. It is contracted directly while walking barefoot in locker rooms, swimming pool complexes, public showers etc. Wearing occlusive shoes causes sweating and increased moisture, which helps maintain the infection. Presents clinically as interdigital, ulcerative, hyperkeratotic and vesicular forms. Causative agents include *Trichophyton rubrum*, *T mentagrophytes*, *T interdigitale*, and *Epidermophyton floccosum.* It is usually unilateral but can also be bilateral, symmetrical, or asymmetrical and acute or chronic. The presence of tinea pedis increases morbidity and the lack of treatment can lead to cellulitis, lymphangitis, and secondary bacterial infections.

7.7 Tinea manuum

Tinea manuum refers to dermatophytic infection of the palmar surface and interdigital areas of one or both hands. The presentation is similar to tinea pedis. Causative agents of tinea manuum include *Trichophyton rubrum, Trichophyton mentagrophytes*, *Epidermophyton floccosum*, *Trichophyton verrucosum*, *Trichophyton interdigitale* and *Microsporum canis*. Clinical features include red scaly lesions with vesicles. This condition can sometimes be confused with pompholyx, hand eczema, or hand psoriasis.

7.8 Tinea unguium

Tinea unguium is a dermatophytic infection of toe or finger nails by dermatophytes. Onychomycosis is an umbrella term for any fungal nail

infection, which can be caused by other types of fungi besides dermatophytes such as yeasts, moulds, etc. It can be difficult to differentiate between tinea unguium and onychomycosis but a distinct clinical pointer is the presence of nail fold infection i.e. paronychia in case of onychomycosis which is generally absent in tinea unguium**.** *Trichophyton rubrum* is the most common cause of tinea unguium. [35] The infection usually begins in the nail bed and later on spreads to involve nail matrix. It is important to treat tinea unguium because it can cause complications like cellulitis, osteomyelitis or total dystrophy of the nail. Treatment of tinea unguium may take 6-12 months or longer.

8. DIAGNOSIS

8.1 BEDSIDE INVESTIGATIONS

8.1.1 Wood's lamp examination

Wood's lamp examination is a particularly useful method to detect fluorescence in skin and hair caused by dermatophytes. (Table 5)

Table 5: Colour of fluorescence shown by different species on Wood's lamp examination

Dermatophyte species	Colour of fluorescence
T. schoenlenii	Dull blue
M. gypseum	Dull yellow
M. audouinii	Blue green
M.canis	Blue green
M. ferrugineum	Blue green

8.1.2 Dermoscopy

Dermoscopy is a simple and easy bedside method to differentiate alopecia due to tinea capitis or other causes. Dermoscopy of tinea capitis reveals the presence of comma, cork- screw shaped and dystrophic hair. It can help differentiate onychomycosis due to dermatophytes from nail changes due to inflammatory conditions like psoriasis vulgaris. A dermoscopy of

hyponychium reveals the presence of subungual hyperkeratosis with a crumbled appearance.

8.2 LABORATORY INVESTIGATIONS

1. KOH wet mount for direct microscopy
2. Fluorescent microscopy
3. Fungal culture
4. Hair perforation test
5. Urease test
6. Histopathological examination
7. Newer methods- PCR/ MALDI TOF/ reflectance confocal microscopy

8.2.1 KOH wet mount for direct microscopic examination

Direct microscopic examination is important for the diagnosis and management of dermatophytosis. The clinical appearance of lesions can be altered by the use of steroids, thus it becomes imperative to get a confirmed diagnosis before providing treatment. An accurate diagnosis also helps reduce the financial burden and any unnecessary side effects of systemic drugs. It is very cost-effective and a simple test. Potassium hydroxide (KOH) examination is a simple bedside technique that involves collecting a sample by scraping the keratin from an active border area of the rash or nail. The sample is then transferred on a slide and treated with potassium hydroxide for examination under a light microscope. Dermatophytes show up as branching septate hyphae. The sensitivity of this method ranges from 67% to 93%, while the specificity ranges from 38% to 78%[36].

8.2.2 Histopathology

The diagnosis of dermatophytosis can be aided by histopathological examination followed by staining with Periodic acid-Schiff (PAS) or Grocott methenamine silver stain (GMS). Histopathology is used mainly for the diagnosis of fungal infection of the nail where fungal hyphae can be seen invading the nail plate.

8.2.3 Fungal culture

Fungal culture stands as a definitive technique for identifying fungi and detecting viable organisms. Sabouraud dextrose agar containing cycloheximide is used for dermatophyte growth. Fungal culture also helps identify fungal species based on colony morphology and characteristics.

8.2.4 Molecular diagnosis

Molecular diagnostic techniques are now being used for scientific research purposes. Different molecular techniques have emerged, including conventional polymerase chain reaction (PCR), real-time PCR, nested PCR, multiplex PCR, PCR enzyme-linked immunosorbent assay, and PCR-restricted fragment length polymorphism. Particularly noteworthy are the substantial advancements in molecular characterizations, including DNA extraction and sequencing, which use internal transcribed spacer polymorphisms within the ITS rDNA regions. These tests help in the identification of the species. With a sensitivity and specificity of 100 %, these tests have promising outcomes.

9. MAGNITUDE OF ECOLOGICAL PROFILE OF DERMATOPHYTOSIS IN WORLD

Microsporum audouinii and *Trichophyton schoenleinii* were considered as the primary disease-causing organism for tinea capitis in the British Isles, Northern and Western Europe, and the Americas in the 20th century.[37] In the same time frame, *Trichophyton mentagrophytes* stood out as the main causative agent of tinea pedis and tinea corporis. However, towards the end of the 20th century, *T. rubrum* was held responsible as the predominant global causative agent with prevalence rates estimated in the range of 40% to 70% in Central and North European nations, followed by *T. mentagrophytes*[38,39]. The same trend was observed to be followed in the United States of America and South-East Asia. In contrast, *Microsporum canis* and *Trichophyton verrucosum* were the most frequently isolated zoophilic dermatophytes in Southern Europe[39]. In

Western Asia, *Epidermophyton floccosum* was the organism most commonly isolated organism [40], whereas Trichophyton violaceum became the primary causative agent in Africa.[41] By the start of 21st century, several anthropophilic dermatophytes like *E. floccosum, M. audouinii*, and *T. schoenleinii* became less common across European countries, being supplanted by various *Trichophyton species* [42]. *T. rubrum* emerged as the predominant organism globally, affecting regions including Europe, South America, Asia, and Africa. The incidence of infections caused by *T. rubrum* has risen notably since the 20th century, mainly affecting individuals aged 20 to 60, with a recent trend of infecting older patients [43]. *T. rubrum* is responsible for a spectrum of fungal infections encompassing tinea pedis, onychomycosis, tinea cruris, tinea corporis, and tinea manuum, with the feet and toenails being the most commonly affected areas but now *Trichophyton mentagrophytes* has again surpassed *T. Rubrum.*

10. MAGNITUDE OF ECOLOGICAL PROFILE OF DERMATOPHYTOSIS IN INDIA

Prior to 1935, *Trichophyton mentagrophytes*, predominantly *Trichophyton interdigitale*, was the primary causative agent of superficial dermatophytosis globally.[44] After that, there was an epidemiological transition where *Trichophyton rubrum* surpassed *Trichophyton mentagrophytes*, emerging as the predominant organism by 1954 in different countries and continents including India[38]. *Trichophyton mentagrophytes* has resurfaced as the prevailing organism in the 21st century. A recent large multicentric study revealed the presence of *Trichophyton mentagrophytes*/ *Trichophyton interdigitale* complex in 93.2 % cases while *Trichophyton rubrum* was present in only 6.8%.[13].

11. MANAGEMENT

11.1 GENERAL MEASURES AND COUNSELLING-[45]

- Maintaining personal hygiene
- Taking regular baths

- After every bath, the entire body surface, especially the body folds and toe clefts, should be thoroughly wiped and dried off before wearing clothes.
- Regular washing of clothes in hot water and drying them in sunlight inside out.
- Avoid sharing fomites like clothes, towels, and soaps with others to prevent the spread of infection.
- Avoid wearing tight bands like waistband, wristband.
- Avoid wearing tight-fitted clothes.
- Simultaneous treatment of other infected house members and close contacts to be advised.
- Should be advised to strictly adhere to treatment.

11.2TOPICAL THERAPY:

- In cases where systemic antifungals are not recommended like first trimester of pregnancy, localized lesion, or severe hepatic dysfunction, topical antifungal agents are typically utilized as the main therapu. Topical treatment options encompass a variety of agents such as azole antifungals (including triazoles and imidazoles), allylamines, benzylamines, tolnaftate, ciclopiroxolamine, and Whitfield ointment.
- Cream should be applied inward, from beyond the margin of the lesion (2 cm) [46]
- Cream to be applied twice daily until at least 1 week after achieving clinical resolution of lesions. [46]

11.3SYSTEMIC THERAPY

- Most patients require a combination of systemic and topical antifungal therapy.
- Treatment for chronic, widespread dermatophytosis typically involves recommending a daily dose of Terbinafine at 250

mg or Itraconazole at 200 mg for adults throughout 4 to 6 weeks.

- Clinical response should be assessed after 3 weeks.
- If there is a partial response, antifungal therapy should be continued. In case of no response, switching to another oral antifungal should be considered.

Table 6: Antifungal drugs with their mechanism of action

Class	Drugs	Mechanism of action
Allylamines	Systemic: Terbinafine Topical: Terbinafine, Butenafine, Naftifine	Inhibition of squalene epoxidase
Heterocyclic benzofurans	Griseofulvin	Inhibition of microtubule aggregation
Polyenes	Nystatin, Natamycin, Amphotericin B (topical)	Disorganization of the cell membrane by formation of pores
Morpholines	Amorolfine (topical)	Inhibition of C-14 reductase and C8 isomerase
Echinocandins	Anidulafungin, Caspofungin, Micafungin	Glucan synthase inhibition
Thiocarbamates	Tolnaftate (topical)	Inhibition of squalene epoxidase
Hydroxypyridones	Ciclopirox (topical)	Chelation of trivalent metal cations Inhibition of metal dependent enzymes – catalase, peroxidase
Others	Tavaborole (topical)	Cytoplasmic leucyl tRNA synthetase - inhibition of protein synthesis and termination of cell growth Succinate dehydrogenase inhibitor

Table 7: Dosing of oral antifungals and their safety profile in pregnancy

Antifungal	Dose paediatrics	Dose adults	Pregnancy category	Side effects
Terbinafine	10-20 kg - 62.5 mg; 20-40kg-125 mg; >40 kg - 250mg	250 mg/day	B	Hepatotoxic (lesser), Neutropenia
Itraconazole	3-5mg/kg/day	100-200 mg	C	Drug interactions, Cardiac failure, Hepatotoxicity
Griseofulvin	10-20mg/kg/day	500-1000 mg	C	Hepatotoxicity, Angioedema, Safe in renal disorders
Fluconazole	3-5mg/kg/day	100-200 mg	D	Hepatotoxic, SJS

12. INCIDENCE OF CHRONIC & RECURRENT DERMATOPHYTOSIS:

Many factors have contributed to the increase in cases of chronic and recurrent dermatophytosis. In their 2014 study, Agarwal and colleagues reported that 163 out of 300 patients (62.5%) experienced a disease duration exceeding three months.[47] Vineetha et al., in their 2018 study in south India documented an incidence rate of 68% (sample size- 150).[48] Later in 2019, Singh et al. revealed prevalence rates of chronic and recurrent dermatophytosis as 65.3% and 34.6 % respectively. [49]

13. EFFECT OF CHRONIC AND RECURRENT DERMATOPHYTOSIS ON QUALITY OF LIFE

Quality of life (QoL) is a measure of an individual's overall well-being and satisfaction with various aspects of their life, including physical health, mental health, social relationships, personal satisfaction, and environmental factors. It includes subjective feelings of happiness, fulfillment, and contentment, along with objective indicators such as health status, economic stability, and access to resources and opportunities. Quality of life is influenced by various factors, such as personal experiences, cultural norms, socioeconomic status, and environmental conditions.[8]

A more recent concept 'Health-related quality of life' (HRQoL) was developed to measure the impact of disease and therapy on an individual's life according to their perception. Higher emphasis is being placed on the patient's perception of the disease and his/her decision-making in managing the illness to enhance the overall quality of life of the patient along with the resolution of the condition.[9]

Patients with dermatophytosis can experience significant physical discomfort, thus affecting their day-to-day activities. They may have symptoms like pruritus, burning, or skin discoloration that can lead to social embarrassment, lower confidence levels, and social timidity. Compared to males, females tend to care more about the cosmetically undesirable effects of discoloration and pigmentation. Therefore, even though dermatological disorders may seem benign, they might have a profound impact on the QoL.

Chronic and recurrent dermatophytosis can affect an individual's quality of life in several ways:

1. **Physical discomfort**: The itching, redness, scaling, and blistering associated with dermatophytosis can cause significant physical discomfort. This discomfort may interfere with daily activities and sleep, leading to fatigue and irritability.

2. **Psychological distress**: Chronic skin conditions can lead to feelings of embarrassment, frustration, and self-consciousness. Individuals may experience stress due to the visible nature of the condition and concerns about social stigma.
3. **Impact on social life**: People with chronic dermatophytosis may avoid social interactions or public places due to fear of judgment or discomfort. This can lead to social isolation, loneliness, and a decreased quality of life.
4. **Financial burden**: The cost of repeated doctor visits, medications, and over-the-counter treatments can add up, especially if the condition persists or recurs frequently. Additionally, missed work or school due to dermatophytosis can result in lost income or academic setbacks.
5. **Decreased self-esteem**: Persistent skin issues can affect self-esteem and body image. Individuals may feel less confident in their appearance, which can impact relationships, career opportunities, and overall well-being.
6. **Complications**: In severe cases, chronic dermatophytosis can lead to secondary bacterial infections or complications such as cellulitis, which require additional medical treatment and can further exacerbate the impact on quality of life.

Overall, chronic and recurrent dermatophytosis can have a multifaceted impact on an individual's physical, emotional, social, and financial well-being. Effective management and treatment are thus essential not only for resolving the skin condition but also for improving the overall QoL.

The Dermatology Life Quality Index (DLQI) Questionnaire is a self-administered questionnaire that patients can fill without any guidance. Questions are grouped under 6 categories: symptoms and feelings (Q.1 & 2), daily activities (Q.3& 4), leisure (Q.5 & 6), personal relationship (Q.8 & 9) with a maximum score of 6 each, and work and school (Q.7) and treatment (Q.10) with a maximum score of 3 and a minimum score of 0.

The higher the total score, the more is the impairment in quality of life. A total score of 0-1 implies no impairment, 2-6 indicates mild impairment, 6-10 indicates moderate impairment, 11-20 indicates severe impairment, and 21-30 implies very severe impairment of quality of life.[10]

Das et al. conducted a study to study 'Impact of chronic and recurrent dermatophytosis on quality of life and psychologic morbidity' using DLQI and found the mean DLQI score to be 21.4 ± 5.6 and with the main domain affected being that of 'symptoms and feelings'. Extremely large effect on quality of life was seen in 55.3% of the patients. (n=123). Persistent disease and higher body surface area involvement influenced DLQI scores.[50]

Another study by Narang et al. to study 'Quality of life and psychological morbidity in patients with superficial cutaneous dermatophytosis' included 196 patients and concluded the mean DLQI score to be 13.41 ± 7.56. The most affected domain was "symptoms and feelings," followed by "daily activities," "leisure" and "personal relationships." The age of the patients and body surface area involvement were found to have a significant impact on the QoL in their study.[51]

Patro et al. conducted a study on 294 patients and revealed that the impact on QoL ranged from moderate (male gender, ≤10% body surface area involvement, disease duration ≤6 months, and low to medium socioeconomic status) to very large (female gender, >10% body surface area involvement, disease duration >6 months, high socioeconomic status, and medium to high educational status) depending on a range of factors.[52]

Skindex-16 is another instrument used to measure the effects of dermatological diseases on a patient's QoL. It was developed after condensing the Skindex-29 questionnaire. Skindex-16 evaluates the distress experienced by patients due to the disease rather than the frequency of its effects. Skindex-16 has been subdivided into domains that assess distress related to Symptoms (Questions No. 1-4), Emotions

(Questions No. 5-11), and Function (Questions No.12-16) have been translated into 11 languages. The Skindex-16 scale, a concise single-page version with fewer items measures the inconvenience rather than the frequency of a patient's experiences. The Skindex-16 has been used previously to assess how QoL is impacted in patients suffering from conditions like vitiligo, facial melanoses, hand eczema, etc.[11]

In Gupta et al.'s study on hand eczema, the Skindex-16 was utilized to evaluate the conditions' effect on QoL. They determined the mean total score to be 31.4. The symptom domain was observed to have the greatest impact, followed by the emotional domain, with the functional domain showing the least impact.[53]

In another study conducted by Raveendra et al. on facial melanoses, Skindex-16 was employed to assess how the condition affected quality of life. They concluded that the emotions domain was the most affected, followed by the functional domain, with the symptom domain being the least affected. They further noted a strong correlation between the Skindex-16 scores and pigmentation severity, leading them to conclude that conditions causing facial pigmentation significantly impact the quality of life of affected patients.[54]

In their study on atopic dermatitis, Higaki et al. utilized Skindex-16 to evaluate how this condition impacted QoL. They found a positive correlation between disease severity and Skindex-16 scores, indicating higher scores were linked to more severe disease. Following appropriate treatment, there was a subsequent decrease in Skindex-16 scores upon follow-up, suggesting an improvement in quality of life.[55]

As far as we know, Skindex-16 has not been used to evaluate the effect of chronic and recurrent dermatophytosis on QoL in patients. Our study will pioneer the use of Skindex-16 for this specific assessment.

MATERIALS AND METHODS

STUDY DESIGN

This study was an observational study conducted at the Department of Dermatology, Venerology & Leprology of Dayanand Medical College & Hospital, Ludhiana. It spanned over 6 months, and included 150 patients attending the outpatient department. The sampling technique used was purposive or conventional sampling technique. The study commenced after obtaining approval from the institutional ethical committee and written consent from all participants provided in Hindi, Punjabi or English language.

INCLUSION CRITERIA

Patients aged 18 years and above of any gender, diagnosed with chronic or recurrent dermatophytosis, and attending the outpatient department (OPD) of the Department of Dermatology, Venerology & Leprology of Dayanand Medical College & Hospital, Ludhiana were eligible for inclusion.

EXCLUSION CRITERIA

-Patients unwilling to participate

-Pregnant and lactating females

- Patients diagnosed with other concurrent dermatological conditions.

METHODS

Patients meeting the criteria outlined above were enrolled for this study. Following informed consent, each patient underwent a detailed personal history and comprehensive cutaneous examination, with findings recorded using a pre-designed proforma. Patients were asked to complete the Dermatology Life Quality Index (DLQI) and Skindex-16 questionnaires. The DLQI, available in English or regional languages such as Hindi or Punjabi, was self-administered by the patients. The Skindex-16

questionnaire was validated in the local language. Translation into Hindi and Punjabi was performed by two language experts, followed by back-translation into English by two independent translators. This translated version was subsequently validated through testing on 20 respondents. Scores from Skindex-16 ranging from 0 to 96, were transformed to a linear scale of 0 to 100. Permission to use the DLQI and Skindex-16 questionnaires for the study was obtained from the relevant authorities.

NUMBER OF CASES

A total of one hundred fifty cases were included.

STATISTICAL ANALYSIS

Statistical analysis was done using SPSS version 26. Mean and standard deviation (SD) was used for continuous variables while frequency, ratio, and percentage were used for categorical variables. For non-parametric data, median and IQR were calculated and normal distribution of numerical variables was determined using Shapiro-Wilk test. Statistical association between study parameters was evaluated using Pearson correlation test, ANOVA with post hoc Dunn's test, and chi-square test. We considered p-value < .05 as statistically significant.

OBSERVATIONS AND RESULTS

This observational study included one hundred and fifty patients with clinically diagnosed cases of chronic and recurrent dermatophytosis, and visiting the outpatient department of Dermatology, & Leprology of Dayanand Medical College and Hospital, Ludhiana. Following their informed consent, detailed history (including occupation, symptoms, previous treatment history) was taken and clinical examination was performed to identify affected body parts. Two indices were used to assess quality of life – DLQI (Dermatology life quality Index) and Skindex-16. The observations and data obtained from the study were compiled and analyzed.

DEMOGRAPHIC DETAILS

1. **Age**:

Table 8 shows age-wise distribution of the patients. Age ranged from 18 to 78 years with mean age of 39.1 ± 14.2 years. The majority of patients lie between the age group of 31 to 50 years (n=68, 45.3%) followed by 18-30 years (n=50, 33.4 %). (Table 8, Fig.1)

Table 8: Age distribution of the patients (n=150)

Age (in years)	No. of cases (n)	Percentage (%)
18-30	50	33.4
31-50	68	45.3
>50	32	21.3
Mean ± SD (in years): 39.1 ± 14.2		

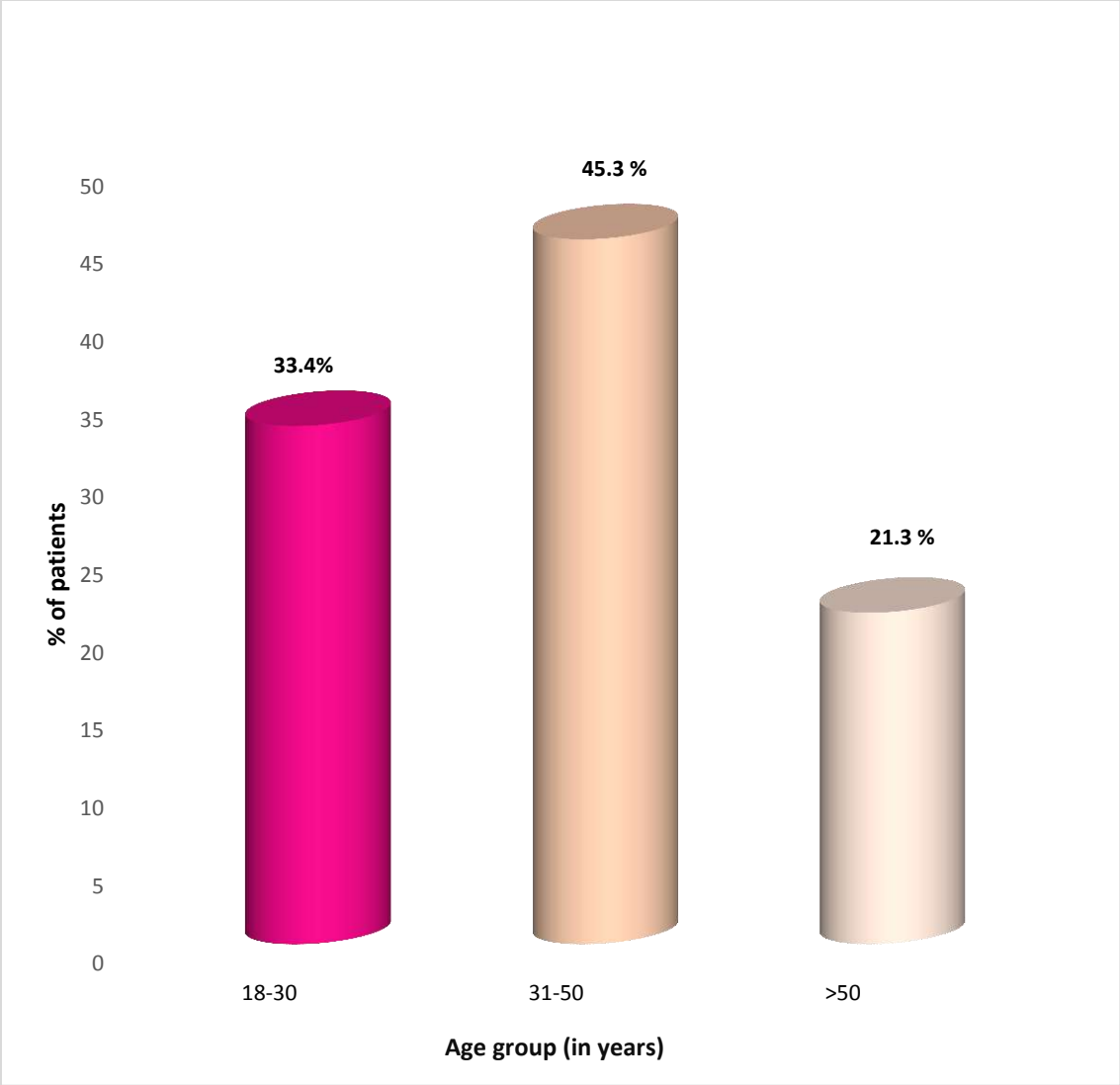

Figure 1: Bar graph showing age-wise distribution of the patients

2. Gender

In the present study of 150 clinically diagnosed cases of chronic and recurrent dermatophytosis, the female-to-male ratio was 1.27:1, with females comprising 56% and males comprising 44% of the patients. (Table 9, Fig. 2)

Table 9: Gender-wise distribution of patients (n=150)

Gender	No. of patients (n)	Percentage (%)
Female	84	56
Male	66	44
Total	150	100

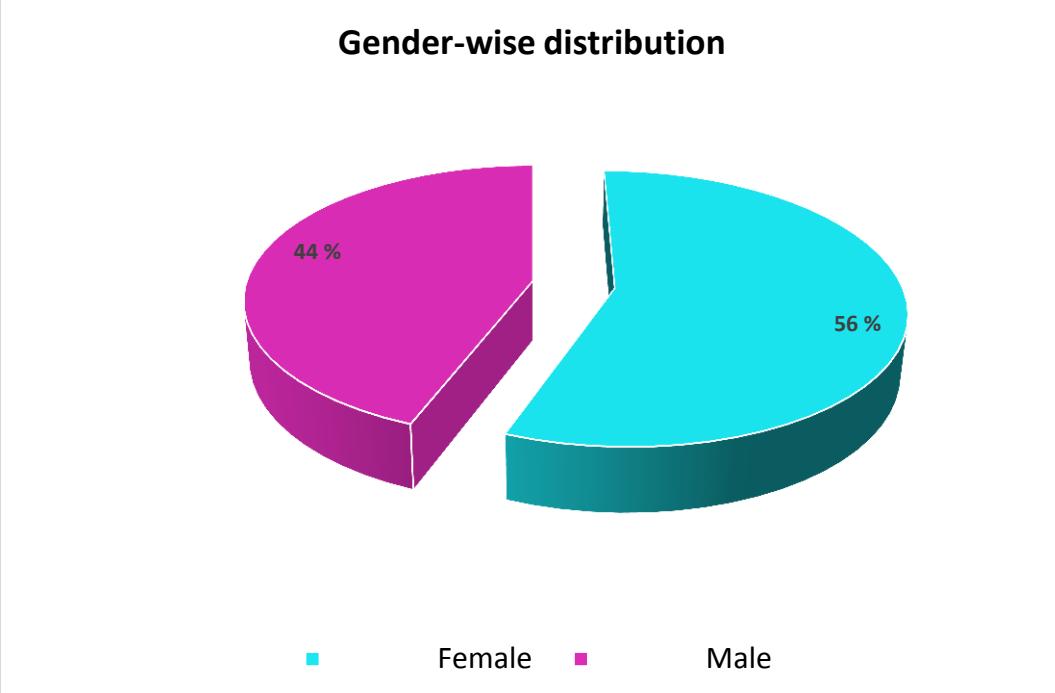

Figure 2: Pie-chart showing gender-wise distribution of patients

3. Distribution of patients according to occupation

In this research, 43.3 % of the cases (n=65) were unemployed, with homemakers comprising the largest portion among them (n=57). Next were skilled laborers (38) including tailors, drivers, farmers, and beauticians with a % of 25.3. Laborers (20) constituted 13.3 % of the cases followed by students (17) with 11.3 % and at last the professionals (10) with % 6.7. (Table 10, Fig. 3)

Table 10: showing occupation-wise distribution of patients (n=150)

Occupation	Number of patients (n)	Percentage (%)
Unemployed	65	43.3
Skilled Labor	38	25.4
Unskilled Labor	20	13.3
Student	17	11.3
Professional	10	6.7

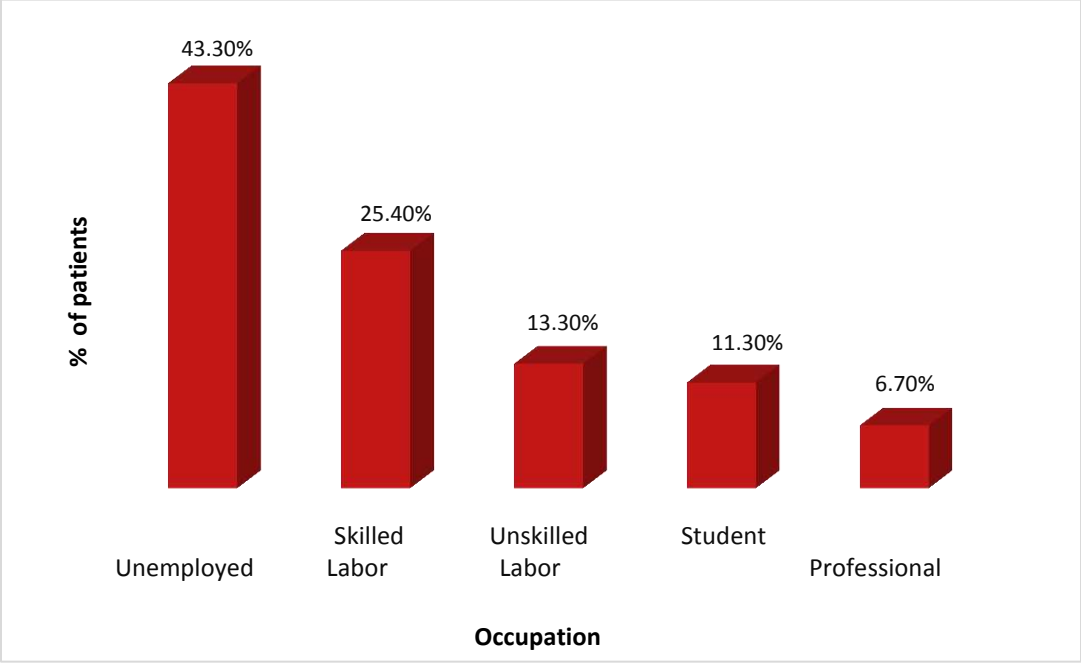

Figure 3: Bar graph showing occupation-wise distribution of patients

Symptomatology and treatment history details

1. Clinical symptoms

Table 11 shows the frequency of different symptoms in the patients. The most common symptom in our study was itching (n=147, 98%) followed by redness (n=138, 92%) and discoloration (n=126, 84%) (Table 4, Fig. 4).

Table 11: Frequency of occurrence of different symptoms

Symptom	Number of patients having symptom	Percentage (%)
Itching	147	98
Redness	138	92
Discoloration	126	84

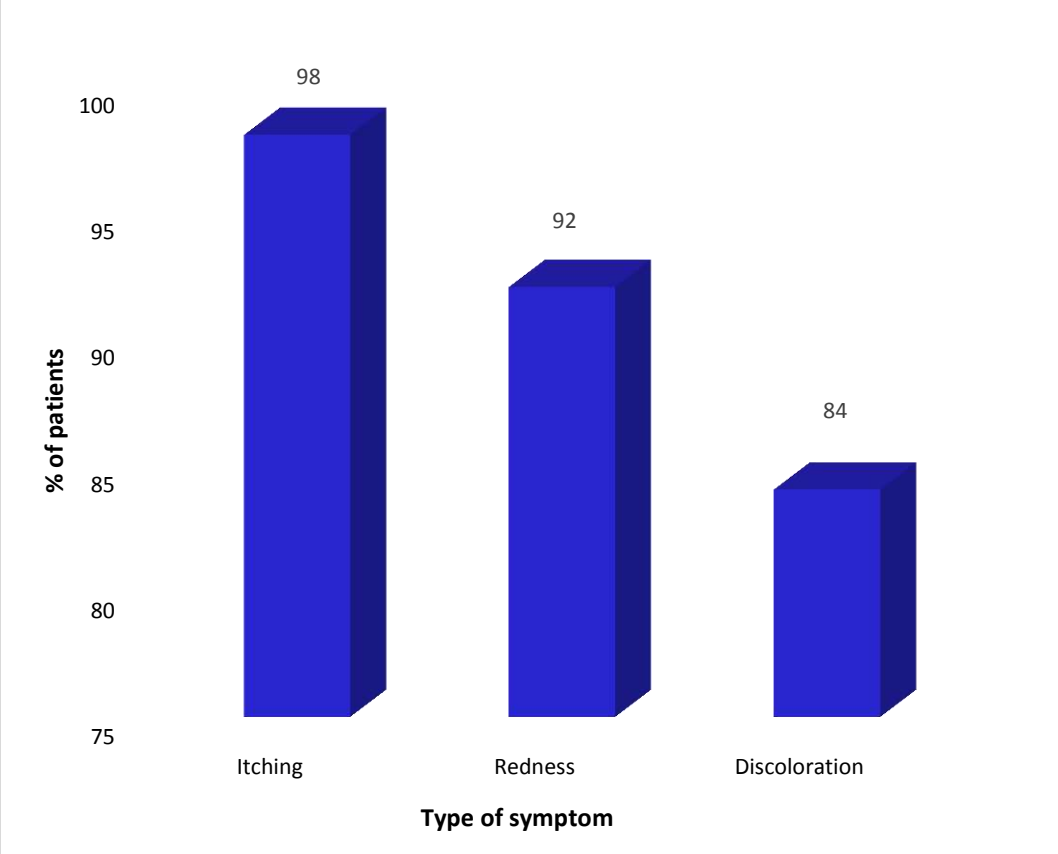

Figure 4: Bar graph showing frequency of different symptoms in patients

2. History of previous treatment-

The history of treatment taken previously was given by 125 (83.3%) of the patients while 25 (16.7%) patients denied taking any treatment. (Table 12, Fig. 5)

Table 12: Distribution of patients according to history of previous treatment (n=150)

History of Previous Treatment	No. of patients	Percentage
Yes	125	83.3
No	25	16.7

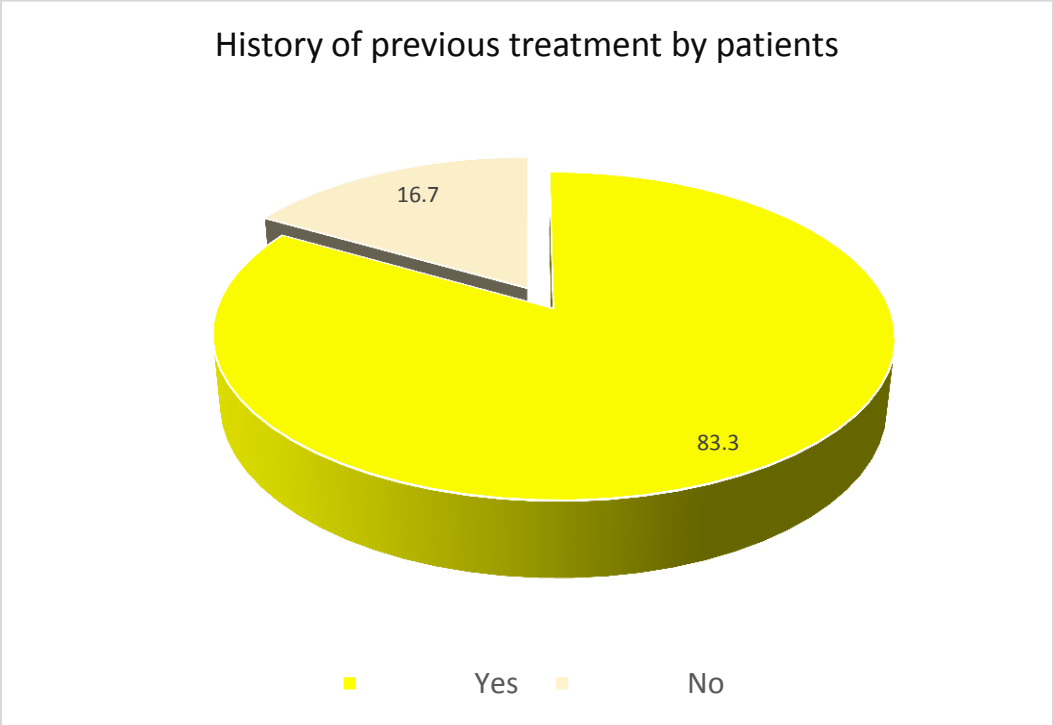

Figure 5: Pie chart showing the distribution of patients according to the history of previous treatment

2.1 History of use of oral antifungals:

In a sample of 125 patients with a documented history of prior treatment, 98 individuals reported using oral antifungals, with 54% of patients stated using Itraconazole, 43.8% mentioned Fluconazole, 13.2% used Terbinafine, and only 2% referenced Griseofulvin. (Fig. 6)

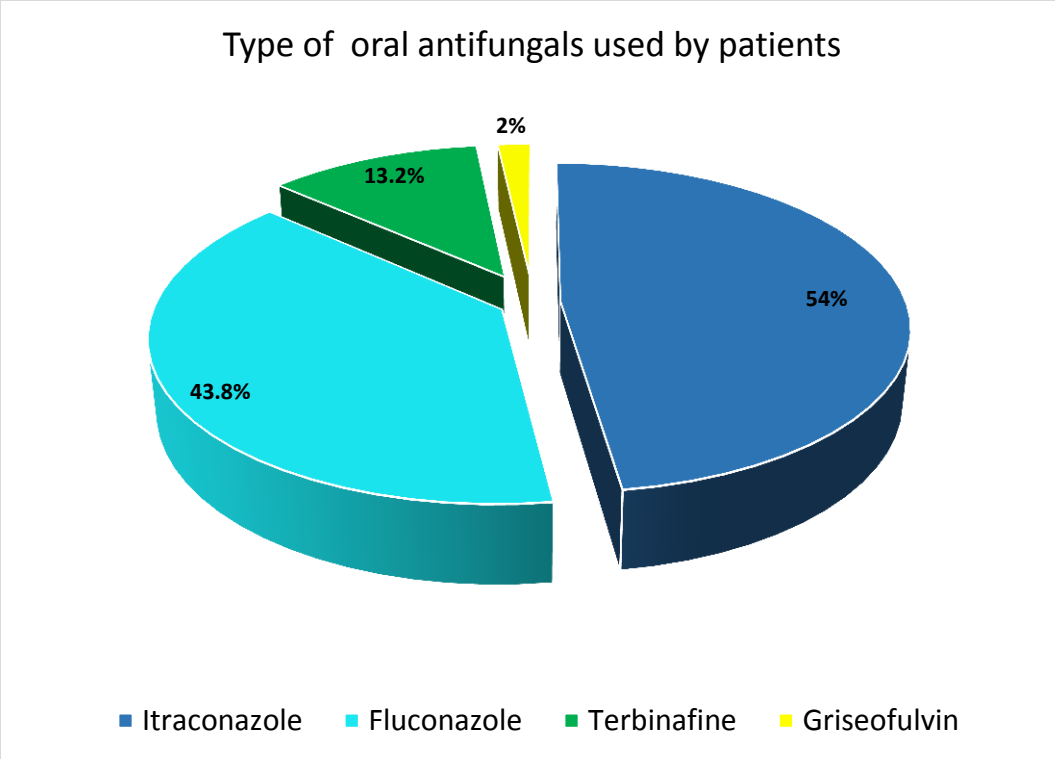

Figure 6: Pie-chart showing the type of oral antifungals used by patients (n=98)

2.2 History of use of topical antifungals:

Of the 125 patients with a history of topical treatment, 99 individuals (79.2%) reported using topical antifungals, while 26 (20.8%) stated they had not previously used them. (Fig. 7)

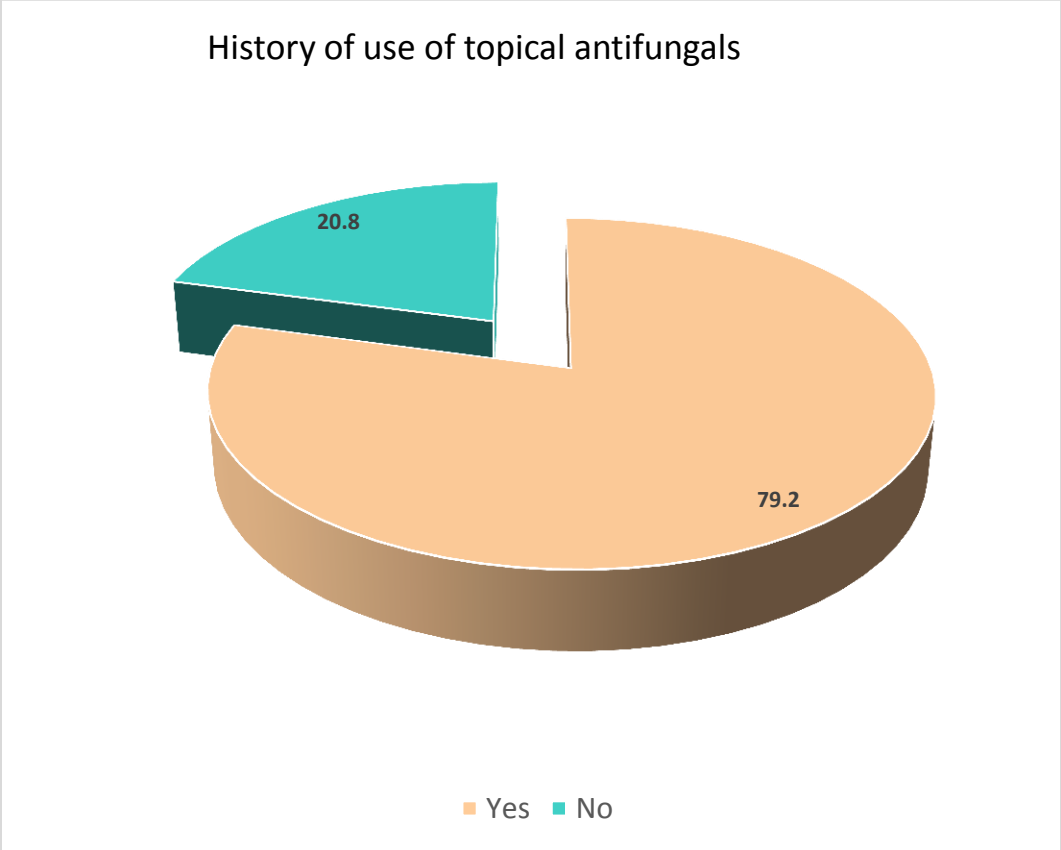

Figure 7: Pie chart showing the distribution of patients based on use of topical antifungals (n=125)

2.3 History of use of topical corticosteroids:

Topical steroids were used by 58.4 % (n=73) patients in our study while 41.6 % (n=52) patients denied a history of use of topical steroids. (Fig. 8)

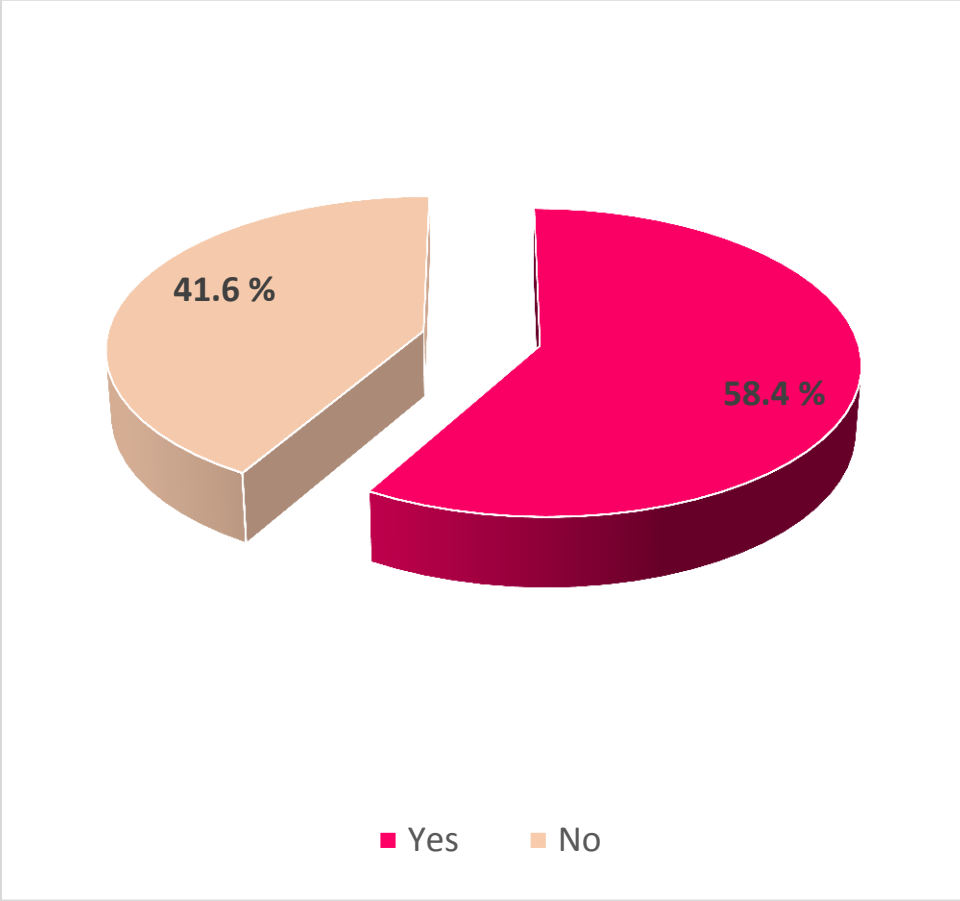

Figure 8: showing distribution of patients according to the use of topical steroids (n=125)

3. Number of body sites involved-

Table 13 shows the distribution of patients according to the number of sites involved. The majority of patients (n=73, 48.7%) reported involvement of two sites, followed by 39.3% (n=59) reporting involvement of only one body site. (Table 6, Fig. 9)

Table 13: Distribution of patients according to the number of sites involved (n=150)

No. of sites involved	No. of patients	Percentage (%)
1	59	39.3
2	73	48.7
≥3	18	12

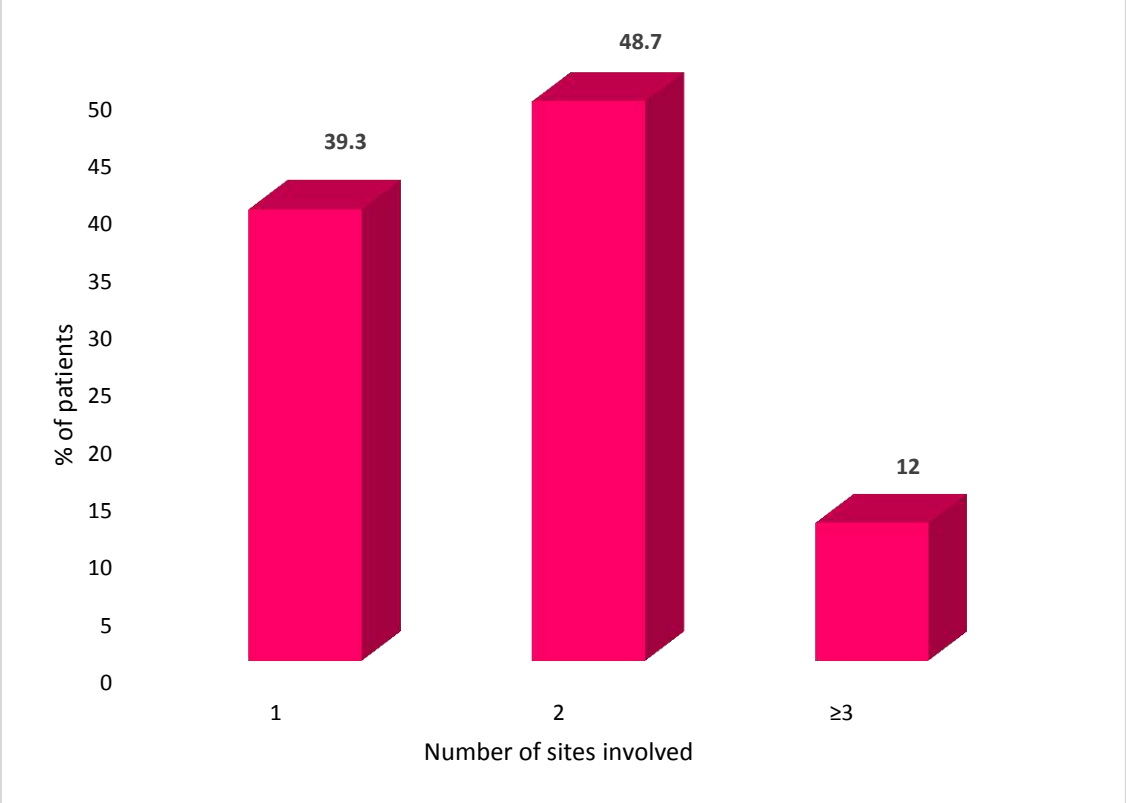

Figure 9: Bar graph showing distribution of patients according to number of sites involved

4. Distribution of patients according to diagnosis-

Table 14 depicts the final diagnosis of patients in the study along with the corresponding number of cases and percentages. The diagnoses include Tinea cruris et corporis with 67 cases (44.7%), Tinea corporis with 31 cases (20.7%), Tinea cruris with 22 cases (14.7%), Tinea cruris et corporis et faciei with 14 cases (9.3%), Tinea corporis et faciei with 4 cases (2.7%), Tinea faciei with 3 cases (2%), Tinea pedis with 3 cases (2%), Tinea cruris et corporis et unguium with 2 cases (1.3%), Tinea cruris et corporis et pedis with 1 case (0.7%), Tinea corporis et manuum with 1 case (0.7%), and Tinea manuum et cruris et unguium and Tinea unguium et cruris each with 1 case (0.7%). (Table 7. Fig 10)

Table 14: Distribution of patients according to diagnosis (n=150)

Diagnosis	No. of Cases	Percentage (%)
Tinea cruris et corporis	67	44.7
Tinea corporis	31	20.7
Tinea cruris	22	14.7
Tinea cruris et corporis et faciei	14	9.3
Tinea corporis et faciei	4	2.7
Tinea faciei	3	2
Tinea pedis	3	2
Tinea cruris et corporis et unguium	2	1.3
Tinea cruris et corporis et pedis	1	0.7
Tinea corporis et manuum	1	0.7
Tinea manuum et cruris et unguium	1	0.7
Tinea unguium et cruris	1	0.7

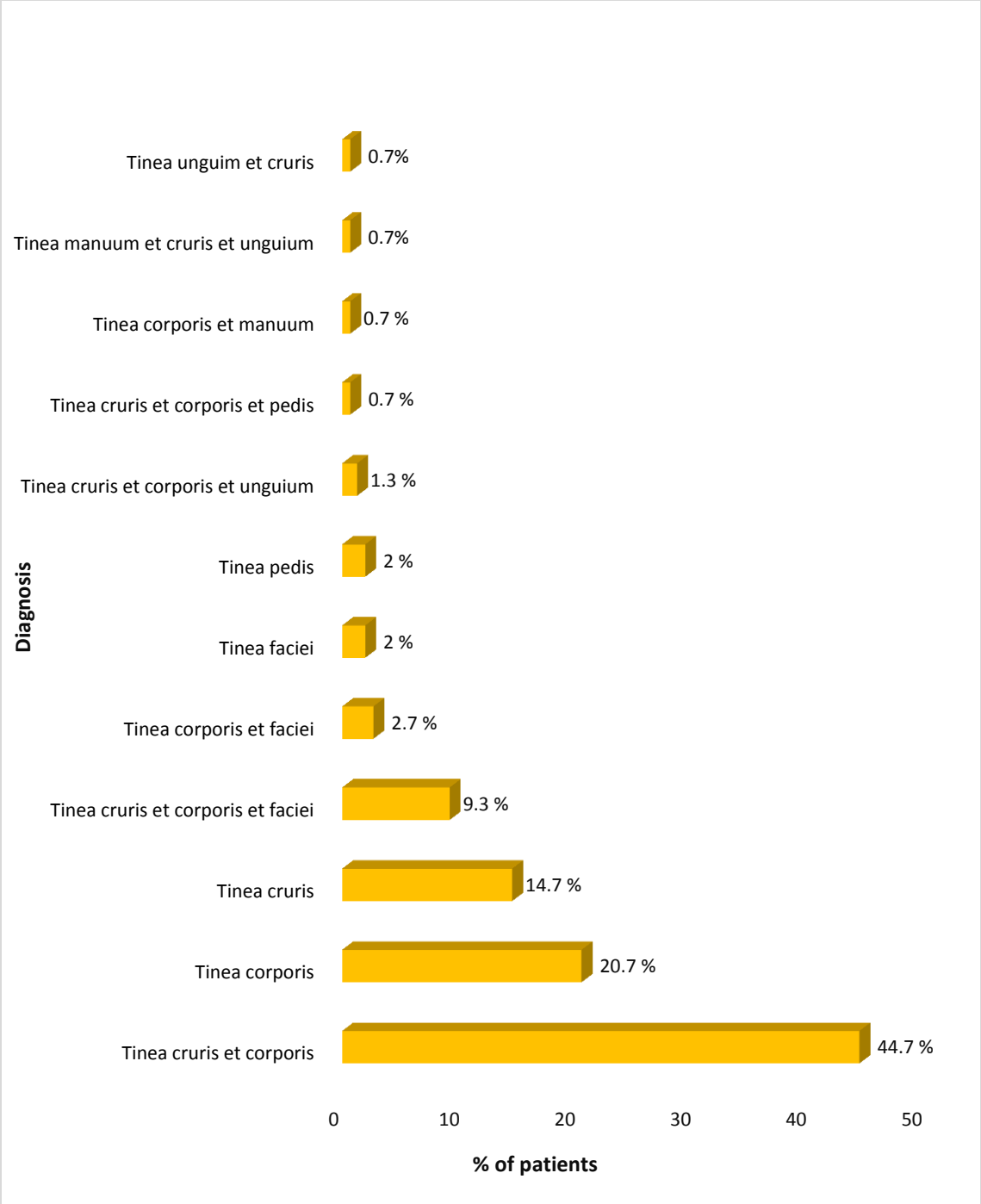

Figure 10: Bar graph showing distribution of patients according to diagnosis

5. Degree of relief in patients after 3 weeks:

62% (n=93) of the patients reported partial relief while 27.3% (n=41) reported complete relief of symptoms and 10.7% (n=16) patients reported no relief in symptoms. (Table 15, Fig. 11)

Table 15: 'Degree of relief' in patients after standard treatment of 3 weeks (n=150)

Degree of relief	No. of patients	Percentage (%)
CR (Complete relief)	41	27.3
PR (Partial relief)	93	62
NR (No relief)	16	10.7

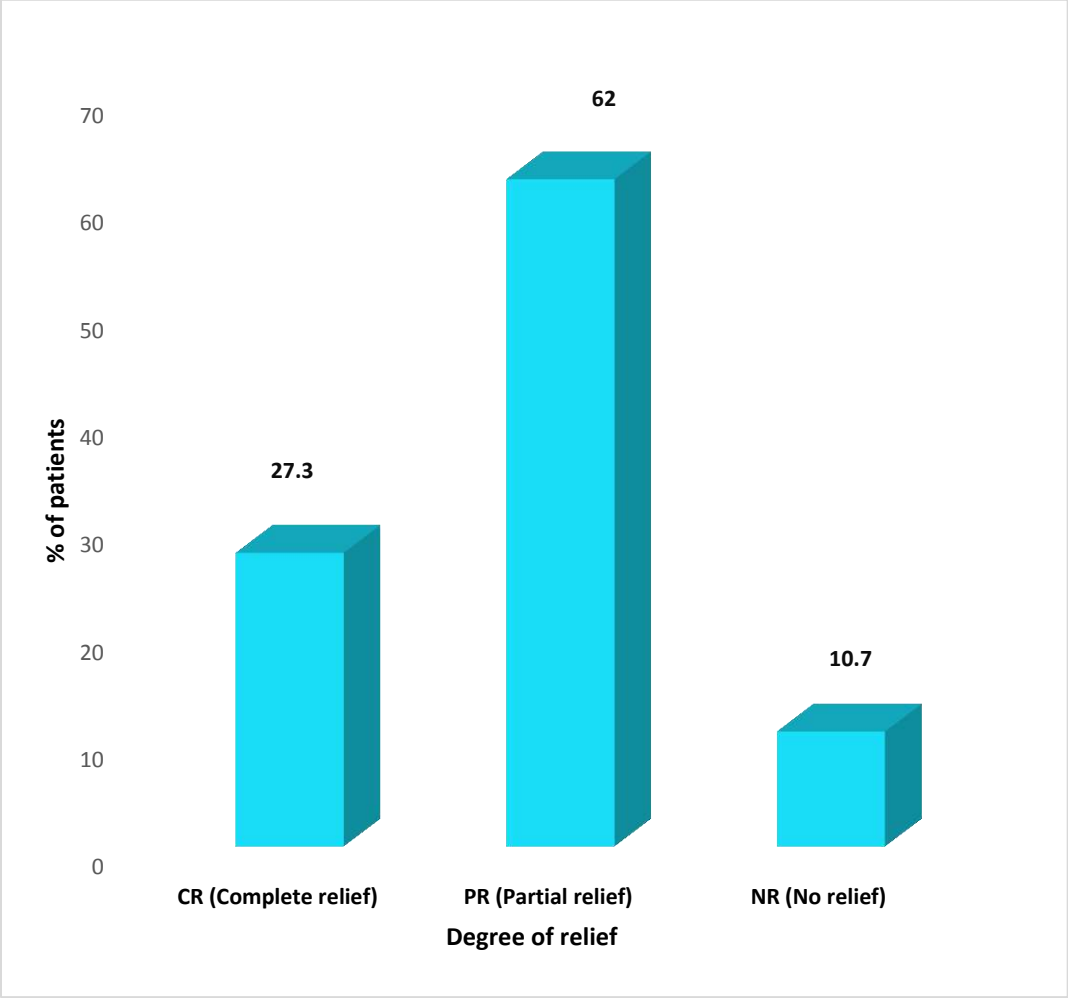

Figure 11: Bar graph showing 'degree of relief' in patients after standard treatment of 3 weeks

Effect of use of topical steroids on response to therapy

Out of 73 people who gave a history of use of topical steroids before initiation of treatment, only 4 showed complete response, 54 showed partial response and 15 patients showed no response at all. A significant association was noticed between prior use of steroids and degree of response after 3 weeks, ($p < .001$). (Table 16)

Table 16: Showing the effect of the use of topical steroids on response to therapy

Response to therapy	**Used topical steroids (n=73, 48.7%)**	**Didn't use topical steroids (n=77, 51.3%)**	
Complete response	4	37	χ^2=41.153 p -.000
Partial response	54	39	
No response	15	1	

DLQI overall score analysis

The mean DLQI score in our study was 12.18 ± 5.31. 54% (n=81) of patients recorded scores between 11-20. 26% (n=39) got scores between 6-10. 12.7 % (n=19) patients had scores between 2-5 and 7.3% (n=11) scored between 21-30. (Table 18)

The most affected aspect in this study was 'Symptoms and feelings' followed by 'work and school' and then 'Personal relationship'. 'Leisure' and 'Daily activities' were equally affected areas with a median score of 1. The least affected area was 'Treatment' with a median score of 0. (Table 17)

Table 17: Median DLQI scores of different domains

Domains	**Median with interquartile range**
Symptoms & feelings	5(6-4)
Work & School	3(3-0)
Personal relationship	2(4-0)
Daily activities	1(2-0)
Leisure	1(2-0)
Treatment	0(1-0)

Table 18: Distribution of patients according to DLQI scores

DLQI CATEGORIES	**n (%)**
0-1 / no effect on patient's life	0 (0)
2-5 / small effect on patient's life	19 (12.7%)
6-10 / moderate effect on patient's life	39 (26%)
11-20 / very large effect on patient's life	81 (54%)
21-30 / extremely large effect on patient's life	11 (7.3%)

Gender-Wise Distribution of DLQI Score

Table 19 presents the distribution of DLQI scores across different sexes. Among 84 females, 9 reported an extremely large effect, 48 reported a very large effect, 16 reported a moderate effect, and 11 reported a small effect on their quality of life**.** Among 66 males, only 2 reported an extremely large effect, 33 reported very large effect, 23 reported moderate effect while 8 reported a small effect on their quality of life. There was no statistically significant association between the gender and DLQI scores (χ^2 = 6.902, p- .075). (Table 19)

Table 19: Association of gender with DLQI scores

Sex	**DLQI Score 0-1**	**DLQI Score 2-5**	**DLQI Score 6-10**	**DLQI Score11-20**	**DLQI Score 21-30**	χ^2 = 6.902 *p* -0.075
Female	0	11	16	48	9	
Male	0	8	23	33	2	

Age-wise Distribution of DLQI Score

Table 20 presents the distribution of DLQI scores across different age groups. The age group which had maximum effect on DLQI was 30-50 years. The chi-square test statistic for the association between age groups and DLQI scores was found to be χ^2 = 33.99, with a corresponding p-value of <.001, indicating a significant relationship between age groups and DLQI score categories.

Table 20: Association between age-groups with DLQI scores

Age Groups	**DLQI Score 0-1**	**DLQI Score 2-5**	**DLQI Score 6-10**	**DLQI Score 11-20**	**DLQI Score 21-30**	
18-30	0	1	11	35	3	χ^2 = 33.99 p - .000
31-50	0	5	18	39	6	
>50	0	13	9	8	2	

Effect of number of sites on DLQI score

The number of body sites affected by dermatophytosis doesn't statistically affect the DLQI scores. The chi-square test statistic for the association between the number of sites and DLQI scores was calculated to be χ^2 = 11.70, with a corresponding p-value of 0.069 (Table 21).

Table 21: Association between number of sites involved and DLQI scores

No. Of sites	**DLQI Score 0-1**	**DLQI Score 2-5**	**DLQI Score 6-10**	**DLQI Score 11-20**	**DLQI Score 21-30**	χ^2 =11.70
1	0	11	20	26	2	p -0.069
2	0	8	15	44	6	
≥3	0	0	4	11	3	

Effect of occupation on DLQI score

Table 22 illustrates the distribution of DLQI scores across different occupations. The unemployed patients (43.3%) had the maximum effect on DLQI scores with homemakers forming the biggest sub-group. The extremely large effect on DLQI is seen in maximum unemployed patients (43.3%) followed by skilled and professionals with percentages of 25.4% and 6.7% in each group. All the patients had some effect on DLQI irrespective of occupation. The chi-square test statistic for the association between occupation and DLQI scores yielded $\chi^2 = 25.183$, with a corresponding p-value of 0.014 which indicated a statistically significant association between occupation and DLQI scores.

Table 22: Association of Occupation with DLQI scores

Occupation	**DLQI Score 0-1**	**DLQI Score 2-5**	**DLQI Score 6-10**	**DLQI Score 11-20**	**DLQI Score 21-30**	χ^2=25.183
Labor	0	0	9	10	1	
Professional	0	0	1	7	2	p-0.014
Skilled	0	3	10	23	2	
Student	0	0	5	12	0	
Unemployed	0	16	14	29	6	

SKINDEX-16

In our study, the mean ± standard deviation of the Skindex-16 score was 67.44 ± 21.35. The highest mean score was recorded in the 'Emotion' domain, at 4.63 ± 1.45, followed by the 'Function' domain at 3.96 ± 1.86, and lastly, the 'Symptom' domain at 3.21 ± 1.21.

Symptom score

The overall mean percentage symptom score of Skindex-16 was 53.25 ± 20.16 (0-100). The t-test comparing the percentage Symptom scores of Skindex-16 between female and male participants yielded a non-significant difference (t = -0.053, p = 0.95). However, the effect size measured by Cohen's d was moderate (d = 0.008), suggesting a small practical significance in the observed differences. (Table 23)

Table 23: Comparison of Mean percentage Symptom score with gender

Gender	Mean	SD	t	P value	Cohen's d
Female	53.17	22.57	-0.053	0.95	0.008
Male	53.35	16.77			

Application of the ANOVA technique for examining Symptom scores of Skindex-16 across different age groups revealed a non-significant effect (F (2,147) = 0.371, p = 0.691), i.e., there were no statistically significant differences in Skindex-16 symptom scores among the age groups. (Table 24)

Table 24: Mean, Standard deviation of percentage Symptom score and one-way analysis of variance in different age groups

Age Groups	Mean	S D	F (2,147)	
18-30	54.08	22.17	0.371	p-0.691
31-50	53.92	18.71		
>50	50.52	20.24		

Emotion score

The mean percentage emotion score of skindex-16 was 77.22 ± 24.25 (0-100). A t-test comparing Mean percentage emotion scores between female and male participants revealed a statistically significant difference (t = 2.051, p = 0.042). The effect size, as measured by Cohen's d, was moderate (d = 0.33), indicating a practical significance in the observed differences. (Table 25)

These results suggest that females reported significantly higher scores compared to males, indicating a potentially greater emotional impact of chronic and recurrent dermatophytosis on their quality of life.

Table 25: Comparison of Mean percentage Emotion score with gender

Gender	**Mean**	**S D**	**t value**		Cohen's d
Female	80.78	22.42		p- 0.042	
Male	72.70	25.85	2.051		0.33

The ANOVA technique was used to examine the differences in percentage Emotion scores of Skindex-16 across age groups. The results revealed a statistically significant effect of age on mean percentage emotion scores ($F(2,147) = 3.016$, $p < 0.05$). Post-hoc comparisons indicated that individuals aged 18-30 reported significantly higher percentage scores compared to the other age groups, suggesting that younger participants experienced a greater impact of dermatological conditions on their quality of life. (Table 26)

Table 26: Mean, Standard deviation of percentage Emotion score and one-way analysis of variance in different age groups

Age Groups	**Mean**	**S D**	**F (2,147)**	
18-30	82.80	18.60	3.016	p- 0.05
31-50	76.72	27.21		
>50	69.56	23.81		

Function score

Table 27 presents the mean, standard deviation, t-value, p-value, and Cohen's d effect size for mean percentage function scores between female and male participants.

A t-test comparing percentage function Skindex-16 scores between female and male participants revealed a non-significant difference ($t = 0.683$, $p = 0.495$). As indicated by Cohen's d, the effect size was small ($d = 0.11$), suggesting minimal practical significance in the observed differences. These results indicate that there were no statistically significant gender differences in reported % function Skindex-16 scores, implying similar levels of dermatological quality of life between females and males in the study population**.**

Table 27: Comparison of Mean percentage Emotion score with gender

Gender	**Mean**	**S D**	**t value**	**p value**	**Cohen's d**
Female	67.58	31.79			

Male	64.10	30.05	0.683	0.495	0.11

Table 28 depicts the age-group-wise distribution of the mean percentage function score. The differences in mean percentage function scores across age groups were evaluated by the ANOVA method. The results revealed a statistically significant effect of age on DLQI scores ($F(2,147) = 10.67$, $p < .001$).

Post-hoc comparisons indicated that participants aged 18-30 reported significantly higher mean percentage function scores compared to both the 31-50 age group and the >50 age group ($p < .001$). Additionally, the 31-50 age group had significantly higher mean percentage function scores compared to the >50 age group ($p < .001$). These findings suggest that younger participants experienced a greater impact of dermatological conditions on their quality of life compared to older age groups.

Table 28: Mean, Standard deviation of percentage Function score and one-way analysis of variance in different age groups

Age Group	**Mean**	**S D**	**F (2,147)**	**p-value**
18-30	76.27	22.74	10.67	.00
31-50	67.90	30.79		
>50	46.14	34.07		

Skindex-16 % Score

Table 29 presents statistical comparisons of mean scores between genders for a particular variable and their standard deviations (SD), t-values, p-values, and Cohen's d effect size. The overall mean Skindex-16 percentage score was 67.44 ± 21.35 (0-100).

For females, the mean score was 69.37 with a standard deviation of 22.14, while for males, the mean score was 64.97 with a t-value of -0.053 and associated p-value of 0.958, suggesting no statistically significant difference between genders. Cohen’s d, a measure of effect size, was calculated to be 0.2, indicating a small effect size. Based on these results,

there appears to be no significant difference between genders in relation to the mean Skindex-16 score.

Table 29: Comparison of Mean percentage Skindex-16 score with gender

Gender (n)	Mean	SD	t value	p-value	Cohen's d
Female (84)	69.37	22.14	-0.053	0.958	0.2
Male (66)	64.97	20.18			

Table 30 depicts the age-group-wise distribution of the mean percentage function score. The ANOVA method was used to examine the differences in mean percentage Skindex-16 scores across age groups. The results revealed a statistically significant effect of age on Skindex-16 scores ($F(2,147) = 6.041$, $p < .001$). Overall, the results suggest that there are significant variations in the variable under consideration across different age groups, with younger individuals (18-30 years) generally exhibiting higher mean scores compared to older age groups.

Table 30: Mean, Standard deviation of percentage Skindex-16 score and one-way analysis of variance in different age groups

Age Groups (n)	Mean	SD	F (2,147)	-value
18-30 (50)	73.37	16.78	6.041	<.001
30-50 (68)	67.90	22.90		
>50 (32)	57.16	21.08		

Co-relation between scores of DLQI and Skindex-16

The correlation coefficient of 0.744 between the Dermatology Life Quality Index (DLQI) and Skindex-16 scores indicates a robust positive correlation. This means that as DLQI scores increase—indicating a greater impact of dermatological conditions on quality of life—Skindex-16 scores also tend to rise. Skindex-16 scores encompass more severe symptoms, emotional distress, and functional impairment due to the skin

condition. Additionally, the R^2 value of 0.555 reflects the strength of the linear relationship between DLQI scores and Skindex-16 % total score. Approximately 55.5% of the variation in Skindex-16 % total score can be explained by changes in DLQI scores. This underscores a moderate correlation: as DLQI scores vary, there's a predictable shift in Skindex-16 % total score according to the linear model.

This strong positive correlation suggests that DLQI and Skindex-16 measures are closely interrelated, offering convergent insights into how skin diseases impact quality of life.

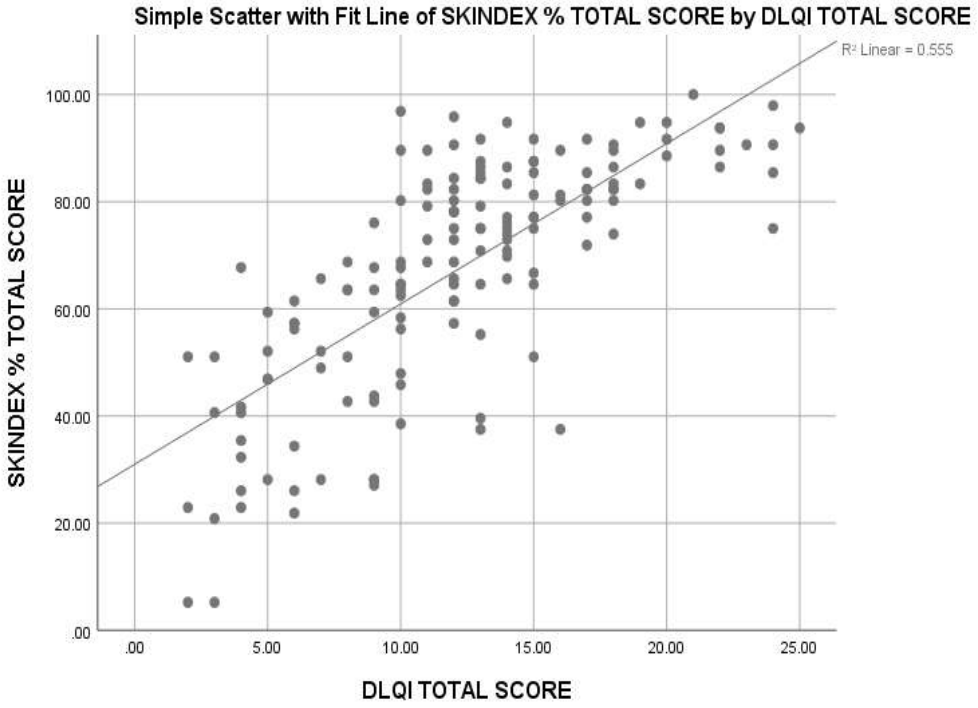

Fig.12- The scatter diagram showing the relationship between DLQI scores (on the x-axis) and Skindex-16 % total score (on the y-axis).

DISCUSSION

Dermatophytosis is a superficial fungal infection of skin, hair, and nails caused by dermatophytes which have been classified into different genera- Trichophyton, Epidermophyton, Nannizzia, Paraphyton, Lophophyton, Microsporum, Ctenomyces, Guarromyces, and Arthroderma.[1] The worldwide occurrence of dermatophytosis has been estimated to range from 20% to 25%.[3] There has been a surge in cases of chronic and recurrent dermatophytosis recently. Chronic dermatophytosis refers to patients who have had persistence of the disease for 6 months to 1 year, with or without recurrence, despite undergoing treatment. Recurrent dermatophytosis refers to the recurrence of infection within 6 weeks following cessation of adequate antifungal therapy, with at least two such episodes occurring within 6 months.[2] The underlying mechanisms responsible for the chronicity and recurrence of dermatophytic infections remain poorly understood. The diagnosis primarily relies on clinical examination, and in cases of uncertainty, a KOH (Potassium Hydroxide) smear may be performed for confirmation. Treatment for dermatophytosis is primarily experience-based and involves a combination of oral and topical antifungal medications.

Chronic skin conditions such as psoriasis, vitiligo vulgaris, and chronic spontaneous urticaria are recognized for their ability to diminish quality of life. Conversely, dermatophytosis has traditionally been perceived as acute, easily treatable, and less impactful on quality of life. Chronic and recurring cases of dermatophytosis can indeed have a substantial negative impact on a patient's well-being, leading to physical discomfort, psychological distress, heightened financial strain, and diminished self-esteem. Despite the high prevalence of dermatophytosis, there remains a shortage of studies examining its effects on quality of life (QoL).

Different indices are available to assess the impact on quality of life of patients suffering from various dermatological conditions. The Dermatology Life Quality Index (DLQI) was developed to be the first dermatology-specific questionnaire introduced in 1994, available in more than 110 translations. It comprises 10 questions that inquire about patients' perceptions regarding how skin diseases have affected various aspects of their health-related quality of life during the past week. It is a self-explanatory questionnaire that is simply handed over to the patient and he/she is asked to fill it without any explanation. The questionnaire was designed with four possible responses for each question: 'not at all', 'a little', 'a lot', or 'very much', which correspond to scores of 0, 1, 2, and 3 respectively. If an answer is deemed 'not relevant', it's scored as '0'. The DLQI score is calculated by adding up the scores of all questions, ranging from a minimum of 0 to a maximum of 30. Questions are classified under 6 headings: symptoms and feelings (Q.1 & 2), daily activities (Q.3& 4), leisure (Q.5 & 6), and personal relationship (Q.8 & 9) with a maximum score of 6, while work and school (Q.7) and treatment (Q.10) had a maximum score of 3 and a minimum score of 0. A greater total score suggests a higher level of impairment in quality of life. A total score of 0-1 implies ‘no effect’, 2-6 indicates ‘small effect’, 6-10 indicates ‘moderate effect’, 11-20 indicates ‘very large effect’, and 21-30 implies ‘extremely large effect’ on quality of life.[10]

Skindex-16 is another instrument used to measure the effects of dermatological diseases on a patient’s QoL. Developed in the mid-1990s, the original version of the questionnaire i.e. Skindex-61 concentrated on skin diseases and their impact on QoL, including cognitive effects, social impacts, depression, fear, embarrassment, anger, physical discomfort, and limitations. It was modified into Skindex-29 which enhanced the discriminative and evaluative capabilities of the original questionnaire while also reducing administration time. Subsequently, the Skindex-29 questionnaire was condensed into a single instrument, the Skindex-16,

which evaluates the distress experienced by patients due to the disease rather than the frequency of its effects. Skindex-16 has been subdivided into domains that assess distress related to Symptoms (Questions No. 1-4), Emotions (Questions No. 5-11), and Function (Questions No.12-16) have been translated into 11 languages. The Skindex-16 scale, a concise single-page version with fewer items measures the inconvenience rather than the frequency of a patient's experiences.[11]

DLQI (Dermatology Life Quality Index) & Skindex-16 have been used previously to assess how different dermatological conditions affect the QoL. In this study we aimed to use these indices to specifically evaluate the impact of chronic and recurrent dermatophytosis on QoL. To the best of our knowledge, this is the first instance of the use of Skindex-16 to evaluate the QoL impact in patients with chronic and recurrent dermatophytosis.

In this prospective cross-sectional observational study, 150 clinically diagnosed cases of chronic and recurrent dermatophytosis were enrolled. Since the DLQI was also available in Punjabi and Hindi, patients were advised to complete the questionnaire in their preferred language. While the Skindex-16 was not initially available in these languages, it was translated into Hindi and Punjabi and subsequently validated through back translation into English by two impartial individuals working independently.

The mean age of patients in our study was 39.1 ± 14.2 years. Other Indian studies focused on assessing the QoL impact of dermatophytosis using DLQI also found the average age of patients to be in the range of 30-40 years. In our study, females (n=84, 56%) outnumbered males (n=66, 44%) with a ratio of 1.27:1. Similar patterns were observed in studies conducted by Patro et al., Mushtaq et al., and Kumar Das et al., where female-to-male ratios were 1.12:1, 1.46:1, and 1.13:1 respectively.[52,56,57]This trend may be attributed to the higher propensity of females to seek healthcare for dermatological conditions, coupled with poorer treatment adherence, which can contribute to the chronicity and recurrence of the condition.

In this study, the occupation of the patients demonstrated a significant correlation with DLQI scores (*p*- .05), showing that a considerable proportion of patients (n=65, 43.3%) were found to be unemployed, with 57 of them being homemakers. This aligns with previous research by Vineetha et al., indicating a heightened infection incidence among homemakers.[48] Similarly, Rudramurthy et al. identified homemakers as the most commonly affected group by dermatophytosis in their study.[7] Homemakers, due to their prolonged exposure to hot and humid kitchen environments, are more susceptible to increased perspiration, thus increasing their likelihood of developing dermatophytosis.

In our study, itching was the most prevalent symptom, observed in 147 participants (98%), followed by redness in 138 participants (92%), and discoloration in 126 participants (84%). Bashir et al., reported pruritus (n=338, 84.5%) as the most common symptom followed by redness (n=310,77.5%) and burning sensation. (n=270, 67.5%).[58] Patro et al., in their study, used 5 D-Pruritus scale along with DLQI and noted a strong correlation between them (r-0.802, $p < .0001$) suggesting pruritus significantly impacts the QoL in patients suffering from dermatophytosis.[52]

Out of 150 patients, 83.3% (n=125) reported a history of previous treatment, while 16.7% of patients stated they had not undergone any prior treatment. Out of 125 patients who took treatment previously, 78.4 % (n=98) took oral antifungals and 79.2 % (n=99) used topical antifungals for dermatophytosis. Itraconazole (54%) was found to be the most used oral antifungal followed by Fluconazole (43.8 %), Terbinafine (13.2 %), and Griseofulvin (2 %). The use of topical corticosteroids was given by 58.4 % (n=73) of patients.

The most common diagnosis in our study was Tinea cruris et corporis (n=67, 44.7%) followed by Tinea corporis (n=31, 20.7%) and Tinea cruris (n=22, 14.7%). On the other hand, Das et al., found the most common diagnosis to be Tinea cruris et corporis et faciei while Tinea corporis was found to be the most common diagnosis in studies conducted by Prakriti et

al., and Mushtaq et al.[50,56,59] A study conducted by Prakriti et al. revealed that the extent of the disease did not influence DLQI scores, a finding consistent with our study.[59] There was no significant association observed between the number of sites involved and DLQI scores. In our study, single-site involvement was identified in 39.3% of patients, two sites in 48.7%, and only 12% of patients exhibited involvement at three sites. In contrast, studies by Bashir et al., Mushtaq et al., and Das et al. reported a significant correlation between the number of sites affected and DLQI scores.[50,56,58] Our study didn't identify a correlation between the number of sites involved and DLQI scores however, a significant correlation was observed between facial involvement and DLQI scores among patients. This suggests that the location of involvement holds more significance than the quantity or extent of the disease in impacting quality of life.

We observed a significant impairment in quality of life (QoL) using DLQI due to the chronic nature and recurrent episodes of dermatophytosis, coupled with its impact on physical appearance. The average DLQI scores and standard deviation observed in our study were 12.18 ± 5.31, correlating well with the scores reported by various authors in similar studies, ranging from 10.076 to 21.40. (Table 31). Das et al., reported the majority of patients experienced an 'extremely large effect' on their quality of life.[50] Similarly, Patro et al., reported a range from 'moderate to very large effect', while both Mushtaq et al., and Bashir et al., observed a 'very large effect' on quality of life in their respective studies.[52,56,58] Consistent with these findings, 54% (n=84) of patients in our study reported a 'very large effect' on their quality of life.

The most affected domain in our study was 'symptoms & feelings' followed by 'work and school' and then 'personal relationships', however, most of the other studies found the most affected domain to be 'symptoms & feelings' followed by 'daily activities'.[51,52,56] This difference in observation across these different studies could be related to the variable composition of the sample. In concordance with previous studies[50,51,58,60], it was noted

that advancing age was associated with worsened QoL in our study with most affected age group being 30-50 years. ($\chi^2 = 33.99$, $p < .001$)

Das et al. in their research found advanced age, involvement of >10% BSA, and involvement of >2 sites to impact QoL significantly.[50] Patro et al. and, Bashir et al. in their studies, found a notable correlation between DLQI and gender, education level, socioeconomic status, and duration of illness.[55,58] Additionally, Mushtaq et al identified longer illness duration as an additional contributing factor.[56] However, contrary to these findings, our DLQI scores were unaffected by gender and number of sites involved.

The mean DLQI in this study was greater than that observed in patients with conditions like psoriasis (6.85 ± 6.22)[61] , vitiligo (7.02 ± 5.58)[62] , and chronic spontaneous urticaria (8.30 ± 0.55)[63] in different studies. The results are surprising because chronic conditions like vitiligo, psoriasis, and urticaria have been assumed to have more impact on quality of life.

Table 31: Comparison of different studies (effect of dermatophytosis on quality of life using DLQI scores)

	Das et al.[51]	**Patro et al.**[55]	**Bashir et al.**[58]	**Mushtaq et al.**[56]	**Meena et al.**[60]	**Kumar Das et al.**[57]	**Narang et al.**[51]	**Our study**
Sample size (n)	123	294	348	425	550	328	196	150
Mean DLQI	21.4 ± 5.6	-	13.93± 6.26	13.4± 7.3	14.44 ± 7.29	10.07± 5.01	13.41 ± 7.56	12.18±5.31
Mean Age (in years)	33.7±11.4	-	34.39±13.10	29.3±11.0	32.14±12.17	-	33.24±14.44	39.1±14.2
Domain affected	Symptoms & feelings	Symptoms	Symptoms	Symptoms & feelings	-	-	Symptoms & feelings	Symptoms & feelings
Significant association with	Age, BSA, Number of sites	Gender, BSA, Duration, SES	Age, Gender, Residence, SES, Duration, Number and type of site involved, BSA, Symptoms	Number of sites involved, BSA, severity of itching	Age, BSA, SES, Poor hygiene	BSA, Duration	Age, BSA	Age, occupation

BSA – Body surface area SES- Socio economic status

In this study, we also employed the Skindex-16 index, a tool widely utilized in previous research (Table 32) to evaluate the influence of diverse dermatological conditions on quality of life. Raveendra et al., in their study on facial melanoses, found maximum impact on the emotional domain followed by functional with the domain of symptom being least affected. On the other hand, a study performed by Gupta et al., on hand eczema revealed the maximum impact on the symptom domain followed by emotion with the function domain at the last.

Table 32: Comparison of Skindex-16 scores in different disease conditions

Skindex-16 Mean score	**Raveendra et al. on facial melanoses**[54]	**Gaurang et al. on vitiligo**[64]	**Gupta et al. on hand eczema**[53]	**Our study**
Average symptom score	1.12±3.01	-	2.24 ±1.10	3.21± 1.21
Average emotion score	17.32±12.66	-	1.90±1.01	4.63 ± 1.45
Average function score	4.78±7.51	-	1.65±0.87	3.96 ± 1.86
Total mean % score	23.25±19.10	31.3±13.7	40.21±14.84	67.44 ± 21.35

In our study, the total mean percentage Skindex-16 score was 67.44 ± 21.35, surpassing the mean scores observed in conditions such as facial melanoses (23.25±19.10), vitiligo (31.3±13.7), and hand eczema (40.21±14.84) which suggests that dermatophytosis can exert a substantial, or even greater, impact on the QoL of affected patients. In our study, although the total mean percentage score of females (69.37 ±

22.14) was slightly higher than that of males (64.97 ± 20.18), the difference was not statistically significant (*P*-value-.958). This aligns with the findings of DLQI, which also did not show any significant effect of gender on scores.

The total mean percentage Skindex-16 score was highest in the 18-30 years (73.37 ± 16.78) age group, followed by the 30-50 years (67.90 ± 22.90) age group, and then the >50 years (57.16 ± 21.08) age group, with the result being statistically significant (*P*-value < .001). This finding is consistent with the DLQI findings, indicating that age had a significant impact on the scores of both measures, although the affected age groups differed. According to DLQI, the most affected age group was 30-50 years, whereas according to Skindex-16, it was the 18-30 years age group.

The mean percentage symptom score of Skindex-16 was significantly higher in males (53.34 ± 16.76) compared to females (53.17 ± 22.56) (*P*-value < 0.05). This difference may be attributed to the potentially higher tolerance levels in females, especially considering that the majority of participants in this study were housewives. Additionally, symptoms may be more bothersome for males engaged in outdoor work. The mean percentage symptom score was found to be maximum in the age group of 18-30 years (54.03 ± 22.16) followed by 30-50 (53.92 ± 18.71) followed at last by the age group of >50 years (50.52± 20.24). This difference was found to be statistically insignificant (*P*-value >0.05). Amongst symptoms, ‘itching’ and ‘irritation’ were most commonly affected with a median score of 6 each followed by ‘burning or stinging’ (median-1). ‘Hurting’ was the least common symptom with a median score of 0.

The mean percentage emotion score was significantly higher in females (80.78 ±22.42) than in males (72.69 ± 25.85) (*P*-value < 0.05). Despite the lower symptom score in females, the impact on the emotional aspect of life was significantly higher in females than males. The mean percentage emotion score was highest among the age group of 18-30 (82.80±18.60), followed by 30-50 years (76.71± 27.21), and lastly, >50 years (69.56 ±

23.80), with a statistically significant association found between mean percentage emotion score and age groups (P-value <.05). This suggests that the younger population was more emotionally impacted by the disease condition. Younger age groups may experience heightened emotional distress due to factors such as peer pressure, judgment regarding visible skin lesions, and the discomfort of itching.

Lastly, the mean percentage function score was 67.57 ± 31.78 in females and 64.09 ± 30.05 in males and the difference was insignificant statistically (*P*-value > 0.05). The mean percentage function score was significantly higher in the 18-30 age group (76.26 ± 22.74), followed by the 30-50 years group (67.89±30.79), and then the >50 years group (46.14±34.07) (*P*-value < .05). Symptoms such as itching can disrupt the functioning of patients, while lesions in the genital region can cause patients to feel self-conscious about intimacy with their partners, thus affecting their quality of life. Younger individuals in our study were found to be more susceptible to these impacts.

In our study, it was observed that overall, the emotion domain was the most affected, followed by the function domain, with the 'symptoms' domain being the least affected. This finding suggests that chronic and recurrent dermatophytosis can have a significant emotional impact on patients, potentially stemming from concerns related to appearance, feelings of embarrassment, frustration, and difficulties in social interactions.

There was a discrepancy in the findings between the DLQI and Skindex-16 surveys. The DLQI indicated that the most affected age group was between 30 and 50 years old, whereas the Skindex-16 suggested it was between 18 and 30 years old. This variation might stem from younger individuals feeling more bothered by the condition despite perceiving it as less severe, whereas older age groups tend to experience the opposite scenario.

A correlation coefficient of 0.744 was discovered between DLQI and Skindex-16 scores, indicating a robust positive correlation between these two assessments which means that as DLQI scores increase, Skindex-16 scores also tend to increase, reflecting more severe symptoms, emotional distress, and functional impairment due to the skin condition. An R^2 value of 0.555 means that approximately 55.5% of the variation in Skindex-16 % total score can be explained by the variation in DLQI scores. A higher DLQI score tends to correspond with a higher Skindex-16 % total score, indicating a more pronounced impact of dermatological conditions on overall quality of life. Such a strong positive correlation suggests that the two measures are closely related and provide convergent information regarding the impact of skin disease on an individual's quality of life.

Furthermore, researchers can leverage this strong correlation to validate the measures and explore the nuanced relationships between different aspects of dermatological conditions and their effects on individuals' lives. It underscores the importance of considering multiple dimensions of quality of life when assessing the impact of skin diseases and designing interventions aimed at improving patient outcomes.

Another study compared DLQI and Skindex-16, revealing that Skindex-16 has better item-level measurement properties than DLQI. Several items in the Skindex-16 specifically address the mental or emotional facets of dermatological conditions, including concerns like worry, frustration, annoyance, and depression, which are notably absent from the DLQI. On the other hand, aspects of health-related quality of life tied to daily functioning, such as clothing choices, participation in sports, and challenges with treatment, might not be reflected in the items of the Skindex-16. DLQI is concerned with severity while Skindex-16 is concerned with ‘how frequently it bothered you?’. This suggests that while each instrument has its own strengths, a comprehensive assessment may require the use of both measures to provide a more holistic understanding of the impact of dermatological conditions on quality of life. Healthcare

professionals can utilize this correlation to gain a comprehensive understanding of the patient's experience with their skin condition, considering both the general impact on quality of life assessed by DLQI and the specific domains of symptoms, emotions, and functioning evaluated by Skindex-16.[65]

SUMMARY AND CONCLUSION

SUMMARY:

This study explored the demographic profile, clinical characteristics, treatment history, and quality of life impact among 150 patients diagnosed with chronic and recurrent dermatophytosis at Dayanand Medical College and Hospital, Ludhiana. Here's a comprehensive summary of the findings:

Demographic Profile:

- Age: The study encompassed patients aged 18 to 78 years, with a mean age of 39.1 ± 14.2 years. The majority fell within the 31-50 years age group (45.3%).
- Gender: Females constituted 56% and males 44% of the patients.
-Occupation: 43.3% were unemployed, with housewives being the largest subgroup. Skilled laborers, unskilled laborers, students, and professionals comprised the remaining occupations.

Symptomatology and Treatment History:

- Clinical Symptoms: Itching (98%) was the most prevalent symptom followed by redness (92%), and discoloration (84%).
- Treatment History: 83.3% had previously undergone treatment, predominantly with oral antifungals (78.4%) and topical antifungals (79.2%). Topical steroids were used by 58.4% of patients.
- Number of Body Sites Involved: Most patients (48.7%) had involvement at two sites.

Diagnosis and Response to Treatment:

- Diagnosis: Tinea cruris et corporis (44.7%) was the most common diagnosis.
- Response to Treatment: After 3 weeks, 62% reported partial relief, 27.3% complete relief, and 10.7% no relief.
- Effect of Topical Steroids on Treatment Response: A significant association ($p < .001$) was found between prior use of topical steroids and treatment response.

Quality of Life (QoL) Assessment:

- DLQI Scores: Mean DLQI score was 12.18 ± 5.31. Most (54%) reported a ‘very large effect’ (scores 11-20) on their QoL.
- Impact on Different Aspects: 'Symptoms and feelings' were most affected, followed by 'work and school' and 'personal relationships'. 'Treatment' had the least impact.
- Gender and Age Differences: No significant difference in DLQI scores was found based on gender ($p = 0.075$), but age groups showed significant association ($p < .001$).
- Occupation: A Significant association ($p = 0.014$) was observed between occupation and DLQI scores, with unemployed individuals reporting the highest impact on QoL.

Skindex-16 Scores:

- Overall Skindex-16 Score: The mean score was 67.44 ± 21.35. The emotion domain had the highest score, indicating a significant emotional impact.
- Gender Differences: Females reported significantly higher emotional impact ($p = 0.042$).
- Age Differences: No significant age-related differences were found in Skindex-16 scores.

Correlation Between DLQI and Skindex-16:

- A strong positive correlation ($r = 0.744$, $p < .001$) was found between DLQI and Skindex-16 scores, indicating that higher QoL impact measured by DLQI corresponded with more severe symptoms, emotional distress, and functional impairment assessed by Skindex-16.

Limitations:

1. The study was constrained by a small sample size.
2. It employed a observational design.

3. Other factors potentially impacting quality of life were not fully accounted for.
4. Post-treatment improvements in quality of life could not be assessed due to the lack of follow-up DLQI and Skindex-16 evaluations.
5. The patient cohort was exclusively sourced from a tertiary care center.
6. Skindex-16 was not available in regional languages and was translated and validated by back translation.

CONCLUSION:

In conclusion, dermatophytosis, once considered a relatively minor dermatological concern, has shown to have a significant impact on the quality of life of affected individuals, especially in chronic and recurrent cases. Through the use of indices like DLQI and Skindex-16 in this study, we have tried to assess the multifaceted effects of dermatophytosis on physical, emotional, and social well-being.

Our study revealed that dermatophytosis can lead to substantial impairment in quality of life, with symptoms such as itching, redness, and discoloration significantly affecting patients' daily activities, personal relationships, and emotional well-being. Moreover, factors such as age, gender, occupation, and previous treatment history were found to influence the extent of impairment experienced by patients.

Furthermore, the comparison between DLQI and Skindex-16 scores highlighted the complementary nature of these instruments in assessing the impact of dermatophytosis. While DLQI provides insights into the severity of the condition, Skindex-16 offers a deeper understanding of how symptoms, emotions, and functioning are affected. The strong positive correlation between the two measures suggests that they can be used in tandem to provide a comprehensive evaluation of patients' quality of life.

Overall, our findings underscore the importance of considering the psychological and social aspects of dermatophytosis alongside its clinical manifestations. By recognizing the profound impact of this condition on

patients' lives, healthcare professionals can tailor treatment approaches to address not only the physical symptoms but also the emotional and social challenges faced by affected individuals. Additionally, further research in this area is warranted to develop more effective interventions aimed at improving the quality of life of patients with dermatophytosis.

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IMAGES

Image.1a- Tinea cruris et corporis with striae due to steroid misuse

Image 1b- Tinea cruris et corporis with striae due to steroid misuse

Image 2a-Extensive dermatophytosis

Image 2b- Extensive dermatophytosis

Image 3- Tinea corporis (eczematoid presentation in chronic dermatophytosis)

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Image 4a - Tinea corporis

Image 4b - Tinea corporis

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Image 5- Striae formation in a patient secondary to misuse of steroids for tine cruris

Image 6- Post Inflammatory Hyperpigmentation secondary to tinea cruris et corporis

Image 7-Tinea manuum on left hand

Image 8- Tinea pseudoimbricata

Image 9- Tinea faciei

KEY TO MASTER CHART

SD-Standard Deviation

DLQI-Dermatology Life Quality Index

Y-Yes

N-No

F/U-Follow Up

DLQI Categories according to DLQI scores-

Category	DLQI Score
1	0-1
2	2-5
3	6-10
4	11-20
5	21-30

Sr.No.	MRD	NAME	AGE	SEX	OCCUPATION	CLASSIFICATION OF OCCUPATION	ITCHING: YES/NO	REDNESS:Y/N	DISCOLORATION: Y/N	NUMBER OF SYMPTOMS	H/O PREVIOUS TREATMENT	ORAL ANTIFUNGALS	FLUCONAZOLE	GRISEOFULVIN	TERBINAFINE	ITRACONAZOLE	IF YES,WHICH ONE	Topical ANTI Fungus : Y/N	TOPICAL STEROIDS Y/N	SATISFACTION WITH T/T :Y/N	NO. OF SITES
1	809197	PK	18	F	STUDENT	STUDENT	Y	Y	Y	3	Y	N					N	N	Y	N	1
2	774633	BA	53	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	1
3	1E+06	IK	47	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	2
4	1E+06	JS	20	M	LABOUR	LABOUR	Y	Y	Y	3	N	N					N	N	N	NR	1
5	1E+06	HS	60	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	N	1
6	1E+06	S	48	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	1
7	1E+06	GK	48	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	Y	1
8	1E+06	S	44	F	HOUSEWIFE	UNEMPLOYED	Y	N	Y	2	N	N					N	N	N	NR	2
9	1E+06	SS	36	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
10	1E+06	CL	59	M	UNEMPLOYED	UNEMPLOYED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	Y	1
11	1E+06	PS	28	F	JOB	PROFESSIONAL	N	Y	Y	2	Y	Y				Y	ITRACONAZOLE	Y	N	N	3
12	771119	AM	32	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
13	1E+06	AK	24	M	JOB	PROFESSIONAL	Y	Y	N	2	N	N					N	N	N	NR	1
14	1E+06	G	22	F	HOUSEWIFE	UNEMPLOYED	N	N	Y	1	Y	Y	Y				FLUCONAZOLE	Y	N	Y	2
15	1E+06	S	26	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	2
16	1E+06	H	33	M	DRIVER	SKILLED	Y	Y	N	2	N	N					N	N	N	NR	2
17	337201	BK	67	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	2
18	1E+06	N	36	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	3
19	1E+06	SD	18	F	STUDENT	STUDENT	Y	Y	Y	3	N	N					N	N	N	NR	2
20	1E+06	TS	60	M	UNEMPLOYED	UNEMPLOYED	Y	Y	N	2	N	N					N	N	N	NR	1
21	262834	JG	38	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
22	2E+06	K	19	M	STUDENT	STUDENT	N	Y	N	1	Y	N					N	Y	N	N	1
23	1E+06	R	39	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	N					N	N	Y	N	1
24	1E+06	J	30	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	2
25	707792	MK	35	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
26	1E+06	G	25	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y		Y			GRISEOFULVIN	Y	Y	N	2
27	1E+06	AR	60	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	Y	1
28	148685	T	40	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	3
29	1E+06	J	44	M	ELECTRICIAN	SKILLED	Y	Y	Y	3	Y	N					N	N	Y	N	2
30	1E+06	HS	34	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	Y	2
31	1E+06	DK	45	M	JOB	SKILLED	Y	Y	Y	3	N	N					N	N	N	NR	1
32	1E+06	SR	65	F	HOUSEWIFE	UNEMPLOYED	Y	N	Y	2	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
33	1E+06	MS	42	M	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	Y	2
34	1E+06	S	33	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	2
35	1E+06	G	28	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	Y	2
36	1E+06	K	25	F	LABOUR	LABOUR	Y	Y	Y	3	Y	N					N	N	Y	N	1
37	1E+06	R	50	F	LABOUR	LABOUR	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
38	1E+06	M	26	F	JOB	SKILLED	Y	Y	N	2	N	N					N	N	N	NR	3
39	1E+06	KK	25	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
40	1E+06	KK	42	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	Y	N	3
41	1E+06	B	40	F	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	1
42	1E+06	PR	40	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	Y	2
43	1E+06	RK	23	M	JOB	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	1
44	637180	PK	60	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	Y	Y				FLUCONAZOLE	Y	N	N	1
45	1E+06	KK	45	F	HOUSEWIFE	UNEMPLOYED	Y	N	Y	2	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
46	1E+06	R	19	F	STUDENT	STUDENT	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	1
47	1E+06	FA	40	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y			Y	ITRACONAZOLE , FLUCONAZOLE	Y	N	N	2
48	1E+06	JS	23	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y			Y	ITRACONAZOLE , FLUCONAZOLE	Y	N	N	1
49	1E+06	RS	63	M	UNEMPLOYED	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y			Y	ITRACONAZOLE , FLUCONAZOLE	Y	Y	N	3
50	760951	AK	30	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	1
51	1E+06	PK	32	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y					N	Y	Y	N	3
52	1E+06	ZH	55	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	Y	N	3

Sr.No.	BODY ; YES/NO	GROINS; YES/NO	BEARD; YES/NO	FACE; YES/NO	HANDS; YES/NO	NAILS;YES /NO	FFET; YES/NO	SCALP; YES/NO	SITES INVOLVED	KOH DONE :Y/N	IF YES,POSITIVE /NEGATIVE	F/U AFTER 3 WEEKS	SKINDEX 1	SKINDEX 2	SKINDEX 3	SKINDEX 4	AVERAGE SYMPTOM SCORE	SYMPTOM SCORE	%symptom score	SKINDEX5	SKINDEX 6
1	N	Y	N	N	N	N	N	N	GROINS	N		PR	3	0	0	3	1.5	6	25.00	5	2
2	Y	N	N	N	N	N	N	N	BODY	N		NR	2	0	1	3	1.5	6	25.00	5	1
3	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	3	0	0	3	1.5	6	25.00	6	1
4	Y	N	N	N	N	N	N	N	BODY	N		PR	6	6	6	6	6	24	100.00	4	4
5	Y	N	N	N	N	N	N	N	BODY	N		PR	5	0	0	6	2.75	11	45.83	6	5
6	Y	N	N	N	N	N	N	N	BODY	N		PR	6	0	0	6	3	12	50.00	6	5
7	N	Y	N	N	N	N	N	N	GROINS	N		PR	5	1	1	5	3	12	50.00	6	5
8	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	3	0	0	2	1.25	5	20.83	1	3
9	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	5	2	5	5	4.25	17	70.83	5	5
10	Y	N	N	N	N	N	N	N	BODY	N		CR	5	0	0	5	2.5	10	41.67	6	4
11	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	1	0	6	3.25	13	54.17	6	5
12	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	6
13	Y	N	N	N	N	N	N	N	BODY	N		CR	6	0	0	6	3	12	50.00	5	4
14	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	5	0	0	5	2.5	10	41.67	6	5
15	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	5	0	0	6	2.75	11	45.83	6	6
16	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	2	0	0	1	0.75	3	12.50	0	1
17	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	5	2.75	11	45.83	6	5
18	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		CR	6	3	0	6	3.75	15	62.50	6	4
19	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	CR	6	5	6	6	5.75	23	95.83	6	6
20	Y	N	N	N	N	N	N	N	BODY	N		CR	3	1	0	5	2.25	9	37.50	6	4
21	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	2	0	0	0	0.5	2	8.33	0	0
22	N	Y	N	N	N	N	N	N	GROINS	N		CR	5	0	0	4	2.25	9	37.50	6	3
23	Y	N	N	N	N	N	N	N	BODY	N		PR	6	0	0	6	3	12	50.00	6	4
24	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	2	0	0	1	0.75	3	12.50	0	2
25	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	5	2.75	11	45.83	6	6
26	Y	N	N	Y	N	N	N	N	FACE,BODY	N		NR	5	0	0	6	2.75	11	45.83	6	6
27	Y	N	N	N	N	N	N	N	BODY	N		CR	5	0	0	5	2.5	10	41.67	6	5
28	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	3	0	6	3.75	15	62.50	6	6
29	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	5	6
30	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	4	0	0	2.5	10	41.67	5	5
31	N	Y	N	N	N	N	N	N	GROINS	N		CR	5	2	2	5	3.5	14	58.33	6	5
32	Y	N	N	N	N	N	N	N	BODY	N		CR	6	1	1	6	3.5	14	58.33	5	6
33	Y	N	N	N	Y	N	N	N	BODY,HANDS	N		PR	5	2	0	5	3	12	50.00	6	4
34	Y	N	N	Y	N	N	N	N	FACE,BODY	N		PR	5	0	0	5	2.5	10	41.67	6	6
35	Y	N	N	Y	N	N	N	N	FACE,BODY	N		PR	6	5	3	6	5	20	83.33	6	6
36	Y	N	N	N	N	N	N	N	BODY	N		NR	6	2	6	6	5	20	83.33	1	2
37	Y	N	N	N	N	N	N	N	BODY	N		CR	6	6	5	1	4.5	18	75.00	6	5
38	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	6	6	4	5.5	22	91.67	5	5
39	Y	N	N	N	N	N	N	N	BODY	N		PR	6	5	6	6	5.75	23	95.83	4	0
40	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	5	5	6	5.5	22	91.67	6	6
41	Y	N	N	N	N	N	N	N	BODY	N		PR	6	6	6	3	5.25	21	87.50	6	6
42	N	Y	N	N	N	Y	N	N	NAILS,GROINS	N		PR	1	0	0	1	0.5	2	8.33	1	6
43	N	Y	N	N	N	N	N	N	GROINS	N		PR	5	0	0	5	2.5	10	41.67	5	3
44	Y	N	N	N	N	N	N	N	BODY	N		CR	5	0	0	5	2.5	10	41.67	6	6
45	Y	N	N	N	N	N	N	N	BODY	N		PR	5	2	0	6	3.25	13	54.17	6	5
46	Y	N	N	N	N	N	N	N	BODY	N		CR	4	0	0	0	1	4	16.67	3	3
47	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	5
48	N	Y	N	N	N	N	N	N	GROINS	N		PR	3	3	4	2	3	12	50.00	2	3
49	N	Y	N	N	Y	Y	N	N	HANDS,NAILS,GROINS	N		PR	4	1	0	6	2.75	11	45.83	6	6
50	N	Y	N	N	N	N	N	N	GROINS	N		CR	5	0	0	6	2.75	11	45.83	0	3
51	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	6	0	6	4.5	18	75.00	6	6
52	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	3	1	5	3.75	15	62.50	6	6

Sr.No.	SKINDEX 7	SKINDEX 8	SKINDEX 9	SKINDEX 10	SKINDEX 11	AVERAGE EMOTION SCORE	EMOTION SCORE	% EMOTION SCORE	SKINDEX 12	SKINDEX 13	SKINDEX 14	SKINDEX 15	SKINDEX 16	AVERAGE FUNCTION SCORE	FUNCTION SCORE	% FUNCTION SCORE
1	6	2	4	3	1	3.29	23	54.76	1	1	0	5	5	2.4	12	40.00
2	1	4	1	4	1	2.43	17	40.48	0	0	0	1	1	0.4	2	6.67
3	5	2	1	2	1	2.57	18	42.86	2	1	0	0	0	0.6	3	10.00
4	6	6	6	6	4	5.14	36	85.71	6	6	6	6	2	5.2	26	86.67
5	5	6	5	6	3	5.14	36	85.71	5	3	3	4	4	3.8	19	63.33
6	6	6	5	6	3	5.29	37	88.10	6	6	6	5	3	5.2	26	86.67
7	2	4	1	2	1	3.00	21	50.00	0	0	0	4	2	1.2	6	20.00
8	2	4	4	4	4	3.14	22	52.38	2	1	1	2	3	1.8	9	30.00
9	6	6	6	6	3	5.29	37	88.10	4	1	1	4	5	3	15	50.00
10	3	6	5	6	3	4.71	33	78.57	6	4	5	5	2	4.4	22	73.33
11	6	6	6	6	3	5.43	38	90.48	6	6	6	4	6	5.6	28	93.33
12	6	6	6	6	5	5.86	41	97.62	6	6	6	3	0	4.2	21	70.00
13	6	6	6	6	2	5.00	35	83.33	6	6	6	3	3	4.8	24	80.00
14	6	6	6	6	4	5.57	39	92.86	5	5	5	5	5	5	25	83.33
15	6	6	6	6	4	5.71	40	95.24	6	6	6	5	3	5.2	26	86.67
16	0	0	0	0	1	0.29	2	4.76	0	0	0	0	0	0	0	0.00
17	6	6	2	6	1	4.57	32	76.19	0	0	6	0	0	1.2	6	20.00
18	6	6	6	6	6	5.71	40	95.24	6	6	6	4	2	4.8	24	80.00
19	6	6	6	6	6	6.00	42	100.00	6	4	4	3	6	4.6	23	76.67
20	4	4	2	5	2	3.86	27	64.29	1	1	1	0	0	0.6	3	10.00
21	3	0	0	0	0	0.43	3	7.14	0	0	0	0	0	0	0	0.00
22	6	3	6	3	4	4.43	31	73.81	5	3	6	3	5	4.4	22	73.33
23	6	6	6	6	2	5.14	36	85.71	6	6	6	6	6	6	30	100.00
24	2	3	3	3	5	2.57	18	42.86	0	0	1	0	0	0.2	1	3.33
25	6	6	6	6	5	5.86	41	97.62	6	6	6	3	3	4.8	24	80.00
26	6	6	6	6	6	6.00	42	100.00	6	6	6	0	0	3.6	18	60.00
27	6	6	3	6	6	5.43	38	90.48	6	5	6	0	0	3.4	17	56.67
28	6	6	6	6	5	5.86	41	97.62	4	6	6	6	6	5.6	28	93.33
29	6	6	6	6	6	5.86	41	97.62	6	6	6	6	6	6	30	100.00
30	5	4	6	6	4	5.00	35	83.33	5	3	2	5	6	4.2	21	70.00
31	6	6	6	6	2	5.29	37	88.10	6	6	6	6	6	6	30	100.00
32	2	6	6	6	4	5.00	35	83.33	3	6	6	4	6	5	25	83.33
33	6	6	6	6	3	5.29	37	88.10	6	3	1	6	1	3.4	17	56.67
34	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
35	6	6	6	6	6	6.00	42	100.00	6	6	6	0	6	4.8	24	80.00
36	0	3	5	2	6	2.71	19	45.24	2	1	2	3	6	2.8	14	46.67
37	5	4	0	4	4	4.00	28	66.67	6	6	6	2	3	4.6	23	76.67
38	6	6	6	6	6	5.71	40	95.24	3	5	6	6	5	5	25	83.33
39	5	6	6	5	5	4.43	31	73.81	4	4	5	6	6	5	25	83.33
40	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
41	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
42	3	3	3	1	1	2.57	18	42.86	0	1	1	1	3	1.2	6	20.00
43	4	4	4	5	3	4.00	28	66.67	3	5	3	4	6	4.2	21	70.00
44	6	3	3	6	3	4.71	33	78.57	2	2	2	0	0	1.2	6	20.00
45	6	2	6	6	4	5.00	35	83.33	6	6	6	0	0	3.6	18	60.00
46	3	3	5	3	6	3.71	26	61.90	1	3	6	6	0	3.2	16	53.33
47	2	4	6	6	6	5.00	35	83.33	2	0	6	6	0	2.8	14	46.67
48	2	4	2	2	1	2.29	16	38.10	0	0	1	3	5	1.8	9	30.00
49	0	0	0	6	3	3.00	21	50.00	6	6	6	6	6	6	30	100.00
50	6	6	6	6	4	4.43	31	73.81	6	6	6	4	0	4.4	22	73.33
51	6	6	6	6	6	6.00	42	100.00	5	5	5	6	4	5	25	83.33
52	6	6	6	6	6	6.00	42	100.00	6	6	6	4	3	5	25	83.33

Sr.No.	SKINDEX TOTAL SCORE	AVERAGE SKINDEX SCORE	SKINDEX % TOTAL SCORE	DLQI 1	DLQI 2	SYMPTOM & FEELING	DLQI 3	DLQI 4	DAILY ACTIVITIES	DLQI 5	DLQI 6	LEISURE	DLQI 7 (WORK AND SCHOOL)	DLQI 8	DLQI 9	PERSONAL RELATIONSHIP	DLQI 10(TREATMENT)	DLQI TOTAL SCORE	DLQI CATEGORY
1	41	2.56	42.71	2	1	3	0	0	0	2	0	2	3	1	0	1	0	9	3
2	25	1.56	26.04	3	1	4	0	0	0	0	0	0	0	0	0	0	0	4	2
3	27	1.69	28.13	2	2	4	1	1	2	0	0	0	1	1	1	2	0	9	3
4	80	5.38	83.33	3	3	6	1	0	1	0	0	0	3	0	0	0	1	11	4
5	61	4.13	63.54	3	1	4	0	0	0	1	0	1	3	1	0	1	0	9	3
6	75	4.69	78.13	3	2	5	1	0	1	1	0	1	3	2	0	2	0	12	4
7	39	2.44	40.63	1	0	1	0	0	0	0	0	0	1	0	1	1	0	3	2
8	36	2.25	37.50	2	1	3	2	2	4	1	2	3	3	1	1	2	1	16	4
9	63	4.31	65.63	2	1	3	2	2	4	1	0	1	3	1	2	3	0	14	4
10	65	4.06	67.71	3	2	5	1	0	1	1	1	2	0	1	0	1	0	9	3
11	79	4.94	82.29	3	3	6	1	2	3	1	0	1	0	3	3	6	1	17	4
12	74	4.63	77.08	3	3	6	1	0	1	2	0	2	1	3	3	6	1	17	4
13	71	4.44	73.96	3	3	6	1	1	2	1	0	1	3	3	3	6	0	18	4
14	74	4.63	77.08	3	2	5	0	1	1	1	0	1	3	2	2	4	1	15	4
15	77	4.81	80.21	3	3	6	1	0	1	1	0	1	3	2	0	2	3	16	4
16	5	0.31	5.21	1	1	2	1	0	1	0	0	0	0	0	0	0	0	3	2
17	49	3.06	51.04	3	0	3	0	0	0	0	0	0	0	0	0	0	0	3	2
18	79	4.94	82.29	3	3	6	1	1	2	0	3	3	2	3	1	4	1	18	4
19	88	5.50	91.67	3	2	5	2	3	5	1	1	2	3	2	0	2	0	17	4
20	39	2.44	40.63	1	0	1	0	0	0	0	0	0	2	0	0	0	1	4	2
21	5	0.31	5.21	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	2
22	62	3.88	64.58	3	1	4	0	0	0	1	2	3	3	0	0	0	0	10	3
23	78	4.88	81.25	3	3	6	1	0	1	1	0	1	3	2	3	5	0	16	4
24	22	1.38	22.92	1	0	1	0	1	1	0	0	0	0	0	0	0	0	2	2
25	76	4.75	79.17	3	3	6	1	1	2	1	0	1	0	2	2	4	0	13	4
26	71	4.44	73.96	3	3	6	1	2	3	0	0	0	0	2	3	5	0	14	4
27	65	4.06	67.71	3	0	3	0	0	0	0	0	0	0	1	0	1	0	4	2
28	84	5.25	87.50	1	1	2	2	1	3	1	0	1	3	2	2	4	2	15	4
29	83	5.19	86.46	3	2	5	0	0	0	0	0	0	3	2	2	4	1	13	4
30	66	4.13	68.75	3	1	4	0	0	0	0	0	0	3	1	0	1	0	8	3
31	77	5.06	80.21	3	2	5	0	0	0	0	0	0	3	2	2	4	0	12	4
32	74	4.63	77.08	3	2	5	1	0	1	1	0	1	3	2	2	4	0	14	4
33	66	4.13	68.75	3	0	3	2	1	3	0	0	0	3	1	2	3	0	12	4
34	82	5.13	85.42	3	2	5	2	0	2	1	0	1	3	1	3	4	0	15	4
35	86	5.38	89.58	3	3	6	0	0	0	3	0	3	0	1	0	1	0	10	3
36	53	3.31	55.21	3	1	4	1	1	2	1	1	2	3	1	0	1	1	13	4
37	69	4.31	71.88	3	2	5	1	0	1	2	1	3	0	3	3	6	2	17	4
38	87	5.44	90.63	3	2	5	3	3	6	0	2	2	3	3	3	6	1	23	5
39	79	4.94	82.29	3	2	5	0	0	0	2	0	2	3	1	0	1	0	11	4
40	94	5.88	97.92	3	3	6	2	2	4	3	0	3	3	3	2	5	3	24	5
41	93	5.81	96.88	3	3	6	1	0	1	0	0	0	0	1	1	2	1	10	3
42	26	1.63	27.08	1	2	3	0	0	0	1	1	2	3	1	0	1	0	9	3
43	59	3.69	61.46	3	2	5	0	0	0	0	0	0	3	0	2	2	2	12	4
44	49	3.06	51.04	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
45	66	4.13	68.75	2	3	5	1	0	1	0	0	0	0	2	3	5	0	11	4
46	46	2.88	47.92	3	0	3	0	0	0	2	0	2	3	2	0	2	0	10	3
47	61	3.81	63.54	3	0	3	0	0	0	0	0	0	3	2	0	2	0	8	3
48	37	2.31	38.54	1	1	2	0	0	0	1	0	1	3	1	2	3	1	10	3
49	62	3.88	64.58	2	2	4	2	1	3	3	0	3	3	2	0	2	0	15	4
50	64	4.00	66.67	3	3	6	1	0	1	1	0	1	3	1	3	4	0	15	4
51	80	5.31	83.33	3	3	6	2	3	5	2	0	2	0	2	3	5	0	18	4
52	82	5.13	85.42	3	3	6	2	3	5	2	0	2	3	3	3	6	2	24	5

Sr.No.	MRD	NAME	AGE	SEX	OCCUPATION	CLASSIFICATION OF OCCUPATION	ITCHING: YES/NO	REDNESS:Y/N	DISCOLORATION: Y/N	NUMBER OF SYMPTOMS	H/O PREVIOUS TREATMENT	ORAL ANTIFUNGALS	FLUCONAZOLE	GRISEOFULVIN	TERBINAFINE	ITRACONAZOLE	IF YES,WHICH ONE	Topical ANTI Fungus : Y/N	TOPICAL STEROIDS Y/N	SATISFACTION WITH T/T :Y/N	NO. OF SITES
53	756041	SR	39	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	2
54	1E+06	BK	38	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	Y	N	3
55	1E+06	A	20	F	STUDENT	STUDENT	Y	Y	Y	3	Y	Y			Y	Y	TERBINAFINE,ITRACONAZOLE	Y	N	N	2
56	676926	PK	56	F	JOB	SKILLED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	N	Y	1
57	2E+06	KS	50	M	JOB	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	1
58	788815	H	43	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	3
59	2E+06	SS	23	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	3
60	1E+06	MK	28	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
61	2E+06	A	24	F	JOB	SKILLED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	N	Y	2
62	21371	P	38	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	2
63	387378	SK	53	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	2
64	2E+06	Y	70	M	UNEMPLOYED	UNEMPLOYED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	N	N	N	2
65	2E+06	D	20	F	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	2
66	1E+06	ZH	55	F	LABOUR	LABOUR	Y	N	Y	2	Y	Y	Y		Y		FLUCONAZOLE,TERBINAFINE	Y	N	Y	1
67	419843	MK	65	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
68	315123	I	25	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	N	Y	N	1
69	1E+06	PK	69	F	HOUSEWIFE	UNEMPLOYED	Y	N	Y	2	Y	N					N	N	Y	N	1
70	1E+06	S	23	M	STUDENT	STUDENT	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
71	1E+06	RP	28	M	JOB	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
72	111445	PS	49	M	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	N	Y	2
73	1E+06	P	27	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	Y	Y	2
74	2E+06	KK	47	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
75	1E+06	SS	27	M	DRIVER	SKILLED	Y	Y	Y	3	Y	N					N	N	Y	N	2
76	2E+06	HS	18	M	STUDENT	STUDENT	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	Y	3
77	1E+06	GK	28	F	UNEMPLOYED	UNEMPLOYED	Y	N	Y	2	Y	Y	Y	Y			FLUCONAZOLE,GRISEOFULVIN	Y	N	N	1
78	1E+06	AD	37	F	JOB	PROFESSIONAL	Y	Y	Y	3	Y	N					N	N	Y	N	3
79	2E+06	SK	40	M	FARMER	SKILLED	Y	Y	Y	3	N	N					N	N	Y	N	2
80	274498	G	24	M	JOB	PROFESSIONAL	Y	Y	N	2	Y	Y	Y				FLUCONAZOLE	Y	N	Y	2
81	1E+06	P	27	F	JOB	PROFESSIONAL	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
82	152108	R	50	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE	Y	Y	N	1
83	822835	KS	58	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	2
84	1E+06	H	19	M	STUDENT	STUDENT	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	2
85	81704	KK	39	F	JOB	SKILLED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	Y	N	1
86	2E+06	HS	25	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	N	Y	N	1
87	903159	GK	78	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	1
88	51747	JS	34	M	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	N	Y	1
89	2E+06	RA	44	F	JOB	PROFESSIONAL	Y	Y	Y	3	Y	N					N	Y	N	N	1
90	2E+06	SS	45	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	Y	N	1
91	1E+06	D	36	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	1
92	2E+06	RS	62	M	UNEMPLOYED	UNEMPLOYED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	N	1
93	2E+06	SK	46	M	LABOUR	LABOUR	Y	Y	Y	3	N	N					N	N	Y	N	2
94	87244	MK	59	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	1
95	2E+06	NK	42	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
96	2E+06	OC	44	M	DRIVER	SKILLED	Y	Y	N	2	N	N					N	N	N	NR	1
97	1E+06	TS	61	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	N	2
98	2E+06	MA	40	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	3
99	2E+06	S	32	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
100	2E+06	S	60	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	2
101	1E+06	SS	31	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
102	568834	SS	57	M	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
103	108939	PS	41	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	N					N	N	Y	N	2
104	2E+06	BR	43	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	N					N	N	Y	N	2

Sr.No.	BODY ; YES/NO	GROINS; YES/NO	BEARD; YES/NO	FACE; YES/NO	HANDS; YES/NO	NAILS;YES /NO	FFET; YES/NO	SCALP; YES/NO	SITES INVOLVED	KOH DONE :Y/N	IF YES,POSITIVE /NEGATIVE	F/U AFTER 3 WEEKS	SKINDEX 1	SKINDEX 2	SKINDEX 3	SKINDEX 4	AVERAGE SYMPTOM SCORE	SYMPTOM SCORE	%symptom score	SKINDEX5	SKINDEX 6
53	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	4	4	6	5	20	83.33	6	6
54	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	3	4	4	4	3.75	15	62.50	6	6
55	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	3	3	1	4	2.75	11	45.83	6	6
56	N	Y	N	N	N	N	N	N	GROINS	N		CR	5	0	0	6	2.75	11	45.83	6	3
57	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	0	0	5	2.75	11	45.83	6	5
58	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	6	6	5	5.75	23	95.83	6	5
59	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	3
60	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	4	0	0	3	1.75	7	29.17	4	3
61	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	3	0	0	2	1.25	5	20.83	2	1
62	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		NR	6	3	3	0	3	12	50.00	6	0
63	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	6	6	6	6	24	100.00	6	6
64	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	5	0	4	3.75	15	62.50	6	3
65	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	6	3	12	50.00	6	6
66	Y	N	N	N	N	N	N	N	BODY	N		CR	3	0	0	5	2	8	33.33	6	6
67	Y	N	N	N	N	N	N	N	BODY	N		PR	3	0	0	0	0.75	3	12.50	6	4
68	Y	N	N	N	N	N	N	N	BODY	N		NR	3	0	0	0	0.75	3	12.50	5	0
69	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	0	0	0	1.5	6	25.00	6	4
70	N	N	N	Y	N	N	N	N	FACE	N		NR	6	0	0	5	2.75	11	45.83	6	0
71	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	5	4	3	4.5	18	75.00	5	0
72	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	3	1	0	4	2	8	33.33	5	4
73	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	3	3	0	5	2.75	11	45.83	6	5
74	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	5	0	6	4.25	17	70.83	6	6
75	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		NR	5	0	0	6	2.75	11	45.83	6	6
76	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		CR	2	1	0	0	0.75	3	12.50	6	5
77	Y	N	N	N	N	N	N	N	BODY	YES	POSITIVE	PR	6	6	0	6	4.5	18	75.00	6	6
78	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	YES	NEGATIVE	NR	6	3	0	6	3.75	15	62.50	6	6
79	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	5	0	6	4.25	17	70.83	6	3
80	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	3	0	6	3.75	15	62.50	6	6
81	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	5	2.75	11	45.83	6	6
82	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	0	0	6	3	12	50.00	6	3
83	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	1	0	6	3.25	13	54.17	6	6
84	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	6	3	12	50.00	5	6
85	N	N	N	Y	N	N	N	N	FACE	YES	POSITIVE	PR	6	6	6	6	6	24	100.00	6	6
86	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	4	0	6	4	16	66.67	6	6
87	Y	N	N	N	N	N	N	N	BODY	N		CR	6	4	0	6	4	16	66.67	6	6
88	N	N	N	N	N	N	NY	N	FEET	N		PR	1	0	6	1	2	8	33.33	6	3
89	Y	N	N	N	N	N	N	N	BODY	N		PR	6	2	0	6	3.5	14	58.33	6	6
90	Y	N	N	N	N	N	N	N	BODY	N		PR	6	2	0	6	3.5	14	58.33	6	3
91	Y	N	N	N	N	N	N	N	BODY	N		CR	6	0	0	6	3	12	50.00	6	6
92	Y	N	N	N	N	N	N	N	BODY	N		PR	4	0	0	4	2	8	33.33	6	5
93	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	6	0	6	4.5	18	75.00	6	6
94	Y	N	N	N	N	N	N	N	BODY	N		CR	0	0	0	3	0.75	3	12.50	6	0
95	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	6	0	6	4.5	18	75.00	6	6
96	Y	N	N	N	N	N	N	N	BODY	N		PR	5	0	0	3	2	8	33.33	5	0
97	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	5	2.75	11	45.83	6	5
98	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	3
99	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	4	0	6	4	16	66.67	6	6
100	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	3	1	6	4	16	66.67	6	5
101	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	5
102	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	1	0	5	3	12	50.00	6	6
103	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	5	0	5	4	16	66.67	6	4
104	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	4	3

Sr.No.	SKINDEX 7	SKINDEX 8	SKINDEX 9	SKINDEX 10	SKINDEX 11	AVERAGE EMOTION SCORE	EMOTION SCORE	% EMOTION SCORE	SKINDEX 12	SKINDEX 13	SKINDEX 14	SKINDEX 15	SKINDEX 16	AVERAGE FUNCTION SCORE	FUNCTION SCORE	% FUNCTION SCORE
53	6	6	6	6	5	5.86	41	97.62	6	6	6	3	4	5	25	83.33
54	6	6	6	6	6	6.00	42	100.00	1	1	2	0	0	0.8	4	13.33
55	6	6	6	6	6	6.00	42	100.00	2	2	5	4	1	2.8	14	46.67
56	3	3	3	3	4	3.57	25	59.52	3	3	3	5	5	3.8	19	63.33
57	4	5	4	5	3	4.57	32	76.19	3	3	3	5	5	3.8	19	63.33
58	6	6	6	6	5	5.71	40	95.24	5	5	5	3	4	4.4	22	73.33
59	6	6	5	6	6	5.43	38	90.48	6	6	6	6	6	6	30	100.00
60	4	5	5	4	2	3.86	27	64.29	3	3	3	3	3	3	15	50.00
61	3	3	3	3	3	2.57	18	42.86	3	3	3	3	3	3	15	50.00
62	6	6	6	6	6	5.14	36	85.71	6	6	6	2	2	4.4	22	73.33
63	6	6	6	6	6	6.00	42	100.00	6	5	6	3	5	5	25	83.33
64	3	3	2	3	3	3.29	23	54.76	0	0	0	2	0	0.4	2	6.67
65	6	6	6	6	5	5.86	41	97.62	5	5	6	4	3	4.6	23	76.67
66	5	6	6	6	6	5.86	41	97.62	5	6	6	6	2	5	25	83.33
67	1	6	4	6	4	4.43	31	73.81	3	1	1	5	0	2	10	33.33
68	6	6	6	6	2	4.43	31	73.81	6	6	6	5	4	5.4	27	90.00
69	2	2	0	0	0	2.00	14	33.33	0	0	0	0	0	0	0	0.00
70	5	6	6	6	2	4.43	31	73.81	1	1	1	3	1	1.4	7	23.33
71	0	4	4	4	4	3.00	21	50.00	6	6	6	4	2	4.8	24	80.00
72	1	1	1	5	3	2.86	20	47.62	3	3	3	6	2	3.4	17	56.67
73	5	5	5	5	4	5.00	35	83.33	6	6	6	3	3	4.8	24	80.00
74	6	6	6	6	6	6.00	42	100.00	6	6	6	5	6	5.8	29	96.67
75	6	5	5	5	5	5.43	38	90.48	5	6	6	6	6	5.8	29	96.67
76	6	6	6	6	6	5.86	41	97.62	4	5	5	5	5	4.8	24	80.00
77	6	6	6	6	6	6.00	42	100.00	6	6	6	4	6	5.6	28	93.33
78	6	6	6	6	6	6.00	42	100.00	5	5	5	6	6	5.4	27	90.00
79	3	3	3	3	3	3.43	24	57.14	3	5	5	6	6	5	25	83.33
80	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
81	6	6	6	6	3	5.57	39	92.86	6	6	6	6	6	6	30	100.00
82	6	6	3	6	6	5.14	36	85.71	0	0	0	6	6	2.4	12	40.00
83	6	6	6	6	3	5.57	39	92.86	5	6	6	6	6	5.8	29	96.67
84	6	6	6	6	6	5.86	41	97.62	6	6	0	6	6	4.8	24	80.00
85	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
86	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
87	5	5	5	6	3	5.14	36	85.71	0	0	0	3	0	0.6	3	10.00
88	1	0	0	0	4	2.00	14	33.33	0	0	0	5	0	1	5	16.67
89	6	6	6	6	3	5.57	39	92.86	6	6	6	6	6	6	30	100.00
90	4	4	4	4	3	4.00	28	66.67	3	3	3	6	6	4.2	21	70.00
91	0	6	3	6	0	3.86	27	64.29	6	6	6	0	0	3.6	18	60.00
92	5	5	5	5	0	4.43	31	73.81	0	3	3	0	0	1.2	6	20.00
93	6	6	5	6	6	5.86	41	97.62	4	4	5	6	6	5	25	83.33
94	0	3	0	6	0	2.14	15	35.71	0	0	0	4	0	0.8	4	13.33
95	6	6	5	6	6	5.86	41	97.62	6	6	6	0	0	3.6	18	60.00
96	0	0	0	0	0	0.71	5	11.90	2	2	2	2	0	1.6	8	26.67
97	3	6	3	6	3	4.57	32	76.19	1	1	1	0	0	0.6	3	10.00
98	6	6	6	6	6	5.57	39	92.86	6	6	6	6	6	6	30	100.00
99	5	5	5	5	3	5.00	35	83.33	6	6	6	6	6	6	30	100.00
100	6	6	6	6	3	5.43	38	90.48	5	5	5	5	5	5	25	83.33
101	5	5	5	5	5	5.14	36	85.71	5	5	5	6	6	5.4	27	90.00
102	1	5	2	5	2	3.86	27	64.29	3	6	6	0	0	3	15	50.00
103	5	5	3	6	3	4.57	32	76.19	4	5	6	0	0	3	15	50.00
104	3	0	2	3	0	2.14	15	35.71	5	6	6	3	0	4	20	66.67

Sr.No.	SKINDEX TOTAL SCORE	AVERAGE SKINDEX SCORE	SKINDEX % TOTAL SCORE	DLQI 1	DLQI 2	SYMPTOM & FEELING	DLQI 3	DLQI 4	DAILY ACTIVITIES	DLQI 5	DLQI 6	LEISURE	DLQI 7 (WORK AND SCHOOL)	DLQI 8	DLQI 9	PERSONAL RELATIONSHIP	DLQI 10(TREATMENT)	DLQI TOTAL SCORE	DLQI CATEGORY
53	86	5.38	89.58	3	2	5	1	3	4	1	0	1	3	3	3	6	3	22	5
54	57	3.81	59.38	2	3	5	1	1	2	1	0	1	0	1	0	1	0	9	3
55	67	4.19	69.79	2	3	5	1	2	3	2	2	4	0	0	0	0	2	14	4
56	55	3.44	57.29	3	2	5	0	0	0	2	0	2	3	1	2	3	0	12	4
57	62	3.88	64.58	3	2	5	3	0	3	2	0	2	3	0	0	0	0	13	4
58	85	5.31	88.54	3	3	6	1	3	4	1	0	1	3	2	3	5	1	20	4
59	80	5.00	83.33	3	3	6	0	0	0	0	0	0	3	2	0	2	3	14	4
60	49	3.06	51.04	1	1	2	0	3	3	1	1	2	3	2	2	4	1	15	4
61	38	2.38	39.58	2	1	3	2	0	2	1	0	1	3	1	1	2	1	13	4
62	70	4.38	72.92	3	3	6	1	0	1	1	1	2	0	3	0	3	0	12	4
63	91	5.69	94.79	3	3	6	2	3	5	2	0	2	3	2	0	2	2	20	4
64	40	2.50	41.67	2	1	3	0	0	0	0	0	0	0	0	0	0	1	4	2
65	72	4.75	75.00	3	3	6	1	0	1	1	0	1	0	3	0	3	1	12	4
66	74	4.63	77.08	3	2	5	1	0	1	1	0	1	3	2	2	4	1	15	4
67	44	2.75	45.83	3	1	4	0	0	0	0	0	0	3	1	1	2	1	10	3
68	61	3.81	63.54	1	2	3	0	0	0	1	0	1	0	3	0	3	1	8	3
69	20	1.25	20.83	2	1	3	0	0	0	0	0	0	0	0	0	0	0	3	2
70	49	3.06	51.04	3	1	4	1	2	3	1	0	1	0	0	0	0	0	8	3
71	63	3.94	65.63	3	2	5	0	0	0	0	0	0	0	0	0	0	2	7	3
72	45	2.81	46.88	3	1	4	0	0	0	0	0	0	0	0	0	0	1	5	2
73	70	4.38	72.92	2	3	5	0	0	0	2	0	2	0	3	3	6	1	14	4
74	88	5.50	91.67	3	2	5	0	1	1	0	0	0	3	3	2	5	1	15	4
75	78	4.88	81.25	2	2	4	0	0	0	2	0	2	3	2	2	4	2	15	4
76	68	4.25	70.83	3	2	5	0	3	3	1	0	1	3	1	0	1	0	13	4
77	88	5.50	91.67	3	3	6	1	3	4	2	0	2	0	3	3	6	2	20	4
78	79	5.25	82.29	3	3	6	1	1	2	0	0	0	3	2	2	4	2	17	4
79	66	4.13	68.75	3	1	4	1	0	1	0	0	0	3	1	0	1	1	10	3
80	87	5.44	90.63	3	3	6	2	0	2	1	3	4	3	3	3	6	3	24	5
81	80	5.00	83.33	3	3	6	1	1	2	1	0	1	3	2	2	4	3	19	4
82	60	3.75	62.50	3	1	4	2	0	2	0	0	0	3	0	0	0	1	10	3
83	81	5.06	84.38	3	1	4	2	0	2	0	0	0	3	2	0	2	1	12	4
84	77	4.81	80.21	3	2	5	2	0	2	3	3	6	3	2	0	2	0	18	4
85	96	6.00	100.00	3	3	6	3	0	3	3	0	3	3	3	0	3	3	21	5
86	88	5.50	91.67	3	1	4	2	0	2	0	0	0	3	1	0	1	3	13	4
87	55	3.44	57.29	3	2	5	0	0	0	0	0	0	0	1	0	1	0	6	3
88	27	1.69	28.13	2	0	2	1	0	1	0	0	0	3	0	0	0	1	7	3
89	83	5.19	86.46	3	3	6	2	1	3	2	0	2	3	3	3	6	2	22	5
90	63	3.94	65.63	3	1	4	2	0	2	0	0	0	3	1	0	1	2	12	4
91	57	3.56	59.38	3	1	4	0	0	0	0	0	0	0	1	0	1	0	5	2
92	45	2.81	46.88	3	2	5	0	0	0	0	0	0	0	0	0	0	0	5	2
93	84	5.25	87.50	3	3	6	0	3	3	2	0	2	3	1	0	1	0	15	4
94	22	1.38	22.92	0	0	0	1	0	1	0	0	0	3	0	0	0	0	4	2
95	77	4.81	80.21	3	2	5	0	1	1	1	0	1	0	1	0	1	2	10	3
96	21	1.31	21.88	2	1	3	1	0	1	1	0	1	0	1	0	1	0	6	3
97	50	2.88	52.08	3	1	4	0	0	0	0	0	0	0	1	0	1	0	5	2
98	81	5.06	84.38	3	3	6	1	0	1	0	0	0	3	2	0	2	1	13	4
99	81	5.06	84.38	3	2	5	1	0	1	2	0	2	3	1	0	1	1	13	4
100	76	4.94	79.17	3	1	4	1	0	1	0	0	0	3	2	0	2	1	11	4
101	75	4.69	78.13	3	2	5	1	0	1	1	0	1	3	0	2	2	0	12	4
102	54	3.38	56.25	3	1	4	0	0	0	1	0	1	0	1	0	1	0	6	3
103	62	3.94	64.58	3	2	5	1	0	1	0	0	0	3	1	0	1	0	10	3
104	47	2.94	48.96	2	1	3	0	0	0	0	0	0	3	1	0	1	0	7	3

Sr.No.	MRD	NAME	AGE	SEX	OCCUPATION	CLASSIFICATION OF OCCUPATION	ITCHING: YES/NO	REDNESS:Y/N	DISCOLORATION: Y/N	NUMBER OF SYMPTOMS	H/O PREVIOUS TREATMENT	ORAL ANTIFUNGALS	FLUCONAZOLE	GRISEOFULVIN	TERBINAFINE	ITRACONAZOLE	IF YES,WHICH ONE	Topical ANTI Fungus : Y/N	TOPICAL STEROIDS Y/N	SATISFACTION WITH T/T :Y/N	NO. OF SITES
105	2E+06	KK	28	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	NR	2
106	2E+06	MK	42	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
107	1E+06	E	26	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	1
108	1E+06	AK	22	F	STUDENT	STUDENT	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
109	50299	GR	61	M	LABOUR	LABOUR	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	Y	3
110	2E+06	BS	61	M	UNEMPLOYED	UNEMPLOYED	Y	Y	N	2	Y	Y			Y		TERBINAFINE	Y	N	Y	1
111	2E+06	HK	48	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
112	1E+06	MK	53	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	N	Y	3
113	108939	PS	41	M	FARMER	SKILLED	Y	Y	N	2	Y	Y				Y	ITRACONAZOLE	Y	N	Y	2
114	2E+06	PK	65	F	HOUSEWIFE	UNEMPLOYED	Y	N	N	1	Y	Y			Y		TERBINAFINE	Y	Y	N	2
115	376515	LS	47	M	JOB	SKILLED	Y	Y	Y	3	N	N					N	N	N	NR	2
116	2E+06	TS	22	M	STUDENT	STUDENT	Y	Y	Y	3	Y	N					N	Y	N	N	2
117	2E+06	GK	53	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	N					N	Y	N	N	2
118	2E+06	SS	47	M	LABOUR	LABOUR	Y	N	Y	2	N	N					N	N	N	NR	1
119	2E+06	IK	19	F	STUDENT	STUDENT	Y	Y	Y	3	N	N					N	N	N	NR	1
120	2E+06	K	19	M	STUDENT	STUDENT	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
121	1E+06	RK	23	M	JOB	PROFESSIONAL	Y	N	Y	2	Y	N					N	N	Y	N	2
122	2E+06	KS	50	M	JOB	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	Y	2
123	2E+06	KL	43	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	1
124	1E+06	B	44	F	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	1
125	1E+06	RK	47	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	N	N					N	N	N	NR	3
126	2E+06	VS	27	M	LABOUR	LABOUR	Y	N	Y	2	Y	N					N	N	Y	N	1
127	2E+06	VR	34	F	JOB	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	N	N	1
128	2E+06	N	33	F	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
129	2E+06	AS	19	M	STUDENT	STUDENT	Y	Y	Y	3	Y	N					N	N	Y	N	1
130	2E+06	SK	60	F	HOUSEWIFE	UNEMPLOYED	Y	N	Y	2	Y	Y			Y		TERBINAFINE	Y	Y	N	3
131	2E+06	SL	40	M	JOB	PROFESSIONAL	Y	Y	N	2	Y	N					N	N	Y	N	1
132	2E+06	BS	32	M	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
133	2E+06	MK	32	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	N	N					N	N	N	NR	2
134	2E+06	HK	31	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
135	1E+06	TS	19	M	STUDENT	STUDENT	Y	Y	N	2	N	N					N	N	N	NR	1
136	2E+06	AG	21	F	STUDENT	STUDENT	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	N	N	2
137	2E+06	PK	38	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
138	2E+06	S	55	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
139	796282	BS	43	M	FARMER	SKILLED	Y	Y	N	2	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
140	2E+06	H	23	M	BUSINESSMAN	SKILLED	Y	Y	Y	3	Y	Y				Y	ITRACONAZOLE	Y	Y	N	2
141	1E+06	LS	33	M	LABOUR	LABOUR	Y	Y	N	2	Y	N					N	Y	Y	N	1
142	2E+06	HK	24	F	JOB	PROFESSIONAL	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
143	211216	HS	30	M	FARMER	SKILLED	Y	Y	N	2	Y	N					N	N	Y	Y	1
144	2E+06	JK	32	F	JOB	PROFESSIONAL	Y	Y	Y	3	Y	Y	Y			Y	FLUCONAZOLE,ITRACONAZOLE	Y	N	Y	2
145	2E+06	LS	25	M	STUDENT	STUDENT	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	N	Y	N	1
146	1E+06	GK	48	F	FARMER	SKILLED	Y	Y	Y	3	Y	Y	Y				FLUCONAZOLE	Y	Y	N	2
147	530065	SS	55	M	UNEMPLOYED	UNEMPLOYED	Y	Y	N	2	N	N					N	N	N	NR	1
148	1E+06	C	60	F	HOUSEWIFE	UNEMPLOYED	Y	Y	Y	3	Y	Y			Y		TERBINAFINE	Y	N	N	2
149	2E+06	SS	19	M	STUDENT	STUDENT	Y	Y	Y	3	Y	N					N	N	Y	N	2
150	2E+06	MK	33	F	HOUSEWIFE	UNEMPLOYED	Y	Y	N	2	Y	N					N	N	Y	N	1

Sr.No.	BODY ; YES/NO	GROINS; YES/NO	BEARD; YES/NO	FACE; YES/NO	HANDS; YES/NO	NAILS;YES /NO	FFET; YES/NO	SCALP; YES/NO	SITES INVOLVED	KOH DONE :Y/N	IF YES,POSITIVE /NEGATIVE	F/U AFTER 3 WEEKS	SKINDEX 1	SKINDEX 2	SKINDEX 3	SKINDEX 4	AVERAGE SYMPTOM SCORE	SYMPTOM SCORE	%symptom score	SKINDEX5	SKINDEX 6
105	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	6	0	6	4.5	18	75.00	6	6
106	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	5	2.75	11	45.83	6	6
107	Y	N	N	N	N	N	N	N	BODY	N		CR	6	0	0	4	2.5	10	41.67	6	6
108	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	5	1	1	5	3	12	50.00	5	5
109	Y	Y	N	N	N	N	Y	N	BODY,GROINS,FEET	N		PR	6	2	0	6	3.5	14	58.33	6	2
110	N	Y	N	N	N	N	N	N	GROINS	YES	POSITIVE	CR	6	0	0	6	3	12	50.00	6	0
111	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	5	0	0	5	2.5	10	41.67	6	6
112	Y	Y	N	Y	N	N	N	N	FACE,BODY,GROINS	N		PR	6	5	2	6	4.75	19	79.17	6	6
113	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	3	2.25	9	37.50	6	0
114	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	5	0	0	5	2.5	10	41.67	6	5
115	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	6	3	12	50.00	5	4
116	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	3	0	3	3	12	50.00	6	6
117	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	6	3	12	50.00	6	4
118	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	0	0	6	3	12	50.00	6	0
119	N	N	N	Y	N	N	N	N	FACE	YES	POSITIVE	CR	6	5	0	4	3.75	15	62.50	6	6
120	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	5	0	0	6	2.75	11	45.83	6	4
121	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	0	0	5	2.75	11	45.83	6	6
122	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	5	0	0	5	2.5	10	41.67	5	6
123	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	4	0	6	4	10	41.67	6	6
124	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	3	0	6	3.75	15	62.50	6	6
125	Y	Y	N	N	N	Y	N	N	BODY,GROINS,NAILS	YES	POSITIVE	PR	6	5	0	5	4	16	66.67	6	6
126	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	6	0	6	4.5	18	75.00	6	2
127	Y	N	N	N	N	N	N	N	BODY	YES	POSITIVE	PR	6	2	0	6	3.5	14	58.33	6	6
128	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	0	0	5	2.75	11	45.83	6	6
129	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	3	3	6	4.5	18	75.00	6	3
130	Y	Y	N	N	N	Y	N	N	BODY,GROINS,NAILS	N		NR	6	1	1	4	3	12	50.00	6	6
131	N	Y	N	N	N	N	N	N	GROINS	N		CR	6	0	0	6	3	12	50.00	6	5
132	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	0	0	6	3	12	50.00	6	5
133	Y	N	N	Y	N	N	N	N	FACE,BODY	YES	POSITIVE	CR	6	5	1	6	4.5	18	75.00	6	6
134	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	0	1.5	6	25.00	5	5
135	Y	N	N	N	N	N	N	N	BODY	N		CR	5	0	0	3	2	8	33.33	4	4
136	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	0	0	6	3	12	50.00	6	6
137	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	5
138	Y	Y	N	N	N	N	N	N	BODY,GROINS	YES	POSITIVE	PR	6	6	0	6	4.5	18	75.00	6	6
139	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	5	0	6	4.25	17	70.83	6	0
140	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	4	3	6	4.75	19	79.17	6	6
141	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	3	1	0	2.5	10	41.67	6	0
142	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		NR	6	2	2	6	4	16	66.67	6	6
143	N	Y	N	N	N	N	N	N	GROINS	N		PR	6	2	0	6	3.5	14	58.33	6	3
144	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	0	0	6	3	12	50.00	6	5
145	N	Y	N	N	N	N	N	N	GROINS	N		NR	6	4	4	6	5	20	83.33	6	6
146	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	4	0	6	4	16	66.67	6	5
147	N	N	N	N	N	N	Y	N	FEET	YES	POSITIVE	PR	6	6	6	6	6	24	100.00	6	0
148	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		CR	6	2	0	6	3.5	14	58.33	6	6
149	Y	Y	N	N	N	N	N	N	BODY,GROINS	N		PR	6	3	0	6	3.75	15	62.50	6	6
150	N	N	N	N	N	N	Y	N	FEET	YES	NEGATIVE	PR	6	3	0	6	3.75	15	62.50	6	6

Sr.No.	SKINDEX 7	SKINDEX 8	SKINDEX 9	SKINDEX 10	SKINDEX 11	AVERAGE EMOTION SCORE	EMOTION SCORE	% EMOTION SCORE	SKINDEX 12	SKINDEX 13	SKINDEX 14	SKINDEX 15	SKINDEX 16	AVERAGE FUNCTION SCORE	FUNCTION SCORE	% FUNCTION SCORE
105	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
106	6	6	6	6	4	5.71	40	95.24	6	6	6	4	3	5	25	83.33
107	5	6	5	5	3	5.14	36	85.71	6	6	6	3	3	4.8	24	80.00
108	5	5	5	5	2	4.57	32	76.19	6	6	6	3	3	4.8	24	80.00
109	2	3	0	3	0	2.29	16	38.10	0	0	0	6	6	2.4	12	40.00
110	0	3	0	3	0	1.71	12	28.57	0	0	0	3	0	0.6	3	10.00
111	6	6	6	6	5	5.86	41	97.62	4	6	6	3	2	4.2	21	70.00
112	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
113	0	3	0	3	0	1.71	12	28.57	0	0	0	6	6	2.4	12	40.00
114	0	3	0	3	1	2.57	18	42.86	1	1	1	0	0	0.6	3	10.00
115	4	4	4	4	3	4.00	28	66.67	1	3	3	6	6	3.8	19	63.33
116	6	6	6	6	6	6.00	42	100.00	6	6	6	1	4	4.6	23	76.67
117	2	4	4	4	3	3.86	27	64.29	3	3	3	3	3	3	15	50.00
118	0	0	0	6	0	1.71	12	28.57	0	0	0	6	6	2.4	12	40.00
119	6	6	6	6	6	6.00	42	100.00	6	6	6	4	4	5.2	26	86.67
120	5	5	5	6	3	4.86	34	80.95	6	6	6	5	4	5.4	27	90.00
121	6	6	6	6	5	5.86	41	97.62	6	6	6	6	6	6	30	100.00
122	6	6	4	6	3	5.14	36	85.71	5	5	5	6	6	5.4	27	90.00
123	4	6	6	6	3	5.29	37	88.10	6	4	4	6	6	5.2	26	86.67
124	6	6	6	6	5	5.86	41	97.62	6	6	6	6	6	6	30	100.00
125	6	6	6	6	3	5.57	39	92.86	6	0	0	6	6	3.6	18	60.00
126	5	5	5	6	0	4.14	29	69.05	6	0	0	6	6	3.6	18	60.00
127	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
128	6	6	6	6	6	6.00	42	100.00	6	6	5	6	6	5.8	29	96.67
129	6	3	6	6	3	4.71	33	78.57	3	3	3	6	6	4.2	21	70.00
130	3	5	3	5	6	4.86	34	80.95	6	4	0	0	0	2	10	33.33
131	1	5	6	6	6	5.00	35	83.33	6	5	1	1	1	2.8	14	46.67
132	6	6	6	6	0	5.00	35	83.33	3	0	0	6	6	3	15	50.00
133	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
134	5	5	5	5	6	5.14	36	85.71	6	6	6	6	6	6	30	100.00
135	4	2	4	4	2	3.43	24	57.14	0	6	6	6	6	4.8	24	80.00
136	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
137	5	5	5	5	6	5.29	37	88.10	6	6	6	6	6	6	30	100.00
138	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
139	0	0	0	0	0	0.86	6	14.29	2	2	2	6	6	3.6	18	60.00
140	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
141	0	3	3	3	0	2.14	15	35.71	0	0	0	0	0	0	0	0.00
142	5	6	6	6	6	5.86	41	97.62	6	6	6	6	6	6	30	100.00
143	2	6	6	6	0	4.14	29	69.05	0	0	0	6	6	2.4	12	40.00
144	6	6	6	6	6	5.86	41	97.62	6	6	6	6	6	6	30	100.00
145	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
146	6	5	6	6	6	5.71	40	95.24	6	6	6	6	6	6	30	100.00
147	0	0	0	0	0	0.86	6	14.29	0	0	0	4	0	0.8	4	13.33
148	6	6	0	5	1	4.29	30	71.43	0	0	6	6	3	3	15	50.00
149	6	6	6	6	6	6.00	42	100.00	6	6	6	6	6	6	30	100.00
150	0	0	0	0	0	1.71	12	28.57	0	0	0	0	0	0	0	0.00

Sr.No.	SKINDEX TOTAL SCORE	AVERAGE SKINDEX SCORE	SKINDEX % TOTAL SCORE	DLQI 1	DLQI 2	SYMPTOM & FEELING	DLQI 3	DLQI 4	DAILY ACTIVITIES	DLQI 5	DLQI 6	LEISURE	DLQI 7 (WORK AND SCHOOL)	DLQI 8	DLQI 9	PERSONAL RELATIONSHIP	DLQI 10(TREATMENT)	DLQI TOTAL SCORE	DLQI CATEGORY
105	90	5.63	93.75	3	3	6	3	3	6	2	0	2	3	3	3	6	2	25	5
106	72	4.75	75.00	3	2	5	3	3	6	2	0	2	3	3	3	6	2	24	5
107	70	4.38	72.92	3	2	5	1	1	2	1	0	1	0	3	0	3	0	11	4
108	68	4.25	70.83	3	3	6	1	1	2	0	1	1	3	2	0	2	0	14	4
109	42	2.63	43.75	3	1	4	2	0	2	0	0	0	3	0	0	0	0	9	3
110	27	1.69	28.13	3	1	4	0	0	0	1	0	1	0	0	0	0	0	5	2
111	72	4.50	75.00	3	3	6	1	1	2	0	0	0	3	1	2	3	0	14	4
112	91	5.69	94.79	3	3	6	3	1	4	1	0	1	0	3	0	3	0	14	4
113	33	2.06	34.38	3	0	3	0	0	0	0	0	0	3	0	0	0	0	6	3
114	31	1.94	32.29	3	1	4	0	0	0	0	0	0	0	0	0	0	0	4	2
115	59	3.69	61.46	3	2	5	1	1	2	2	0	2	3	0	0	0	0	12	4
116	77	4.81	80.21	3	3	6	0	0	0	2	0	2	3	3	3	6	0	17	4
117	54	3.38	56.25	3	1	4	1	0	1	0	0	0	3	1	1	2	0	10	3
118	36	2.25	37.50	3	0	3	0	0	0	3	0	3	3	2	2	4	0	13	4
119	83	5.19	86.46	3	3	6	1	1	2	3	0	3	0	3	0	3	0	14	4
120	72	4.50	75.00	3	2	5	0	1	1	2	3	5	3	1	0	1	0	15	4
121	82	5.13	85.42	3	3	6	0	0	0	1	0	1	3	1	2	3	0	13	4
122	73	4.56	76.04	3	1	4	0	0	0	2	0	2	3	2	3	5	0	14	4
123	79	4.94	82.29	3	1	4	3	0	3	1	0	1	3	1	0	1	0	12	4
124	86	5.38	89.58	3	2	5	2	0	2	1	0	1	3	1	3	4	0	16	4
125	73	4.56	76.04	3	0	3	1	0	1	1	0	1	3	1	0	1	0	9	3
126	65	4.06	67.71	3	1	4	0	0	0	0	0	0	3	0	0	0	3	10	3
127	86	5.38	89.58	3	3	6	1	3	4	1	0	1	3	1	3	4	0	18	4
128	82	5.13	85.42	3	3	6	1	2	3	2	0	2	3	1	2	3	0	17	4
129	72	4.50	75.00	3	2	5	0	0	0	2	3	5	3	0	0	0	0	13	4
130	50	3.50	52.08	3	1	4	0	0	0	0	0	0	3	0	0	0	0	7	3
131	61	3.81	63.54	3	1	4	0	0	0	1	0	1	3	0	2	2	0	10	3
132	62	3.88	64.58	3	2	5	0	0	0	1	2	3	3	0	1	1	0	12	4
133	90	5.63	93.75	3	3	6	2	1	3	3	0	3	3	3	1	4	3	22	5
134	72	4.50	75.00	3	2	5	1	0	1	1	0	1	3	0	3	3	0	13	4
135	56	3.50	58.33	3	1	4	1	0	1	1	1	2	3	0	0	0	0	10	3
136	84	5.25	87.50	3	3	6	0	2	2	1	1	2	3	0	0	0	0	13	4
137	79	4.94	82.29	3	2	5	2	1	3	1	0	1	3	2	3	5	1	18	4
138	90	5.63	93.75	3	3	6	2	3	5	2	0	2	3	1	3	4	2	22	5
139	41	2.56	42.71	3	0	3	0	0	0	1	0	1	3	0	0	0	1	8	3
140	91	5.69	94.79	3	3	6	1	2	3	1	2	3	3	1	3	4	0	19	4
141	25	1.56	26.04	3	0	3	0	0	0	0	0	0	3	0	0	0	0	6	3
142	87	5.44	90.63	3	1	4	1	1	2	1	0	1	3	0	2	2	0	12	4
143	55	3.44	57.29	3	0	3	0	0	0	0	0	0	3	0	0	0	0	6	3
144	83	5.19	86.46	3	3	6	2	2	4	1	0	1	3	1	3	4	0	18	4
145	92	5.75	95.83	3	2	5	1	0	1	1	0	1	3	0	2	2	0	12	4
146	86	5.38	89.58	3	2	5	2	0	2	1	0	1	3	0	0	0	0	11	4
147	34	2.13	35.42	3	0	3	0	0	0	0	0	0	1	0	0	0	0	4	2
148	59	3.69	61.46	3	0	3	0	0	0	0	0	0	3	0	0	0	0	6	3
149	87	5.44	90.63	3	3	6	0	3	3	3	3	6	3	0	0	0	0	18	4
150	27	1.69	28.13	3	0	3	0	0	0	0	0	0	3	0	0	0	3	9	3

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The Principal
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Ludhiana

Subject:: Approval of Plan of Thesis.

This is to inform you that the Faculty of Medical Sciences in its meeting held on 25.09.2023 has approved the plan of thesis of **Divjot Kaur Arora**, a student of your college for **MD Dermatology,** along with the names of Supervisor/Co-Supervisor as under:-

Topic Plan of Thesis
Assessment of quality of life in patients with chronic & recurrent dermatophytosis .

Supervisor	Co-Supervisor:-	Co-Supervisor:-
Dr. Sunil K. Gupta	Dr. Sukhjot Kaur	Dr. Rupesh Chaudhary
Prof. & Head	Assoc. Prof.,	Professor
Dept. of Dermatology	Dept. of Dermatology	Dept. of Psychiatry

The student may submit the thesis in triplicate alongwith the plan in triplicate also, to the Controller of Examinations, BFUHS, Faridkot, at least six months before the commencement of theory examination, if he/she is otherwise eligible to take the examination. He /She may be directed to attach a photocopy of this letter with the forwarding letter while submitting thesis in the University along with the letter of approval of University for change of supervisor/Co-Supervisor, change of topic, if any.

Controller of Examinations

Note :

1. *If any discrepancy found regarding topic of thesis or Supervisor/Co-Supervisor, inform undersigned within one month after issue of this letter.*

ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS

THESIS PROPOSAL

FOR APPROVAL OF SUBJECT OF THESIS TO BE SUBMITTED IN

PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MD

In

DERMATOLOGY

OF THE

BABA FARID UNIVERSITY OF HEALTH SCIENCES

FARIDKOT

AUGUST, 2022

DR. DIVJOT KAUR ARORA

DEPARTMENT OF DERMATOLOGY

DAYANAND MEDICAL COLLEGE AND HOSPITAL

LUDHIANA

ABSTRACT OF PLAN OF THESIS

Title	ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS
For the degree of	MD (DERMATOLOGY)
Name of the candidate	Dr. Divjot Kaur Arora
Supervisor	Dr. Sunil K. Gupta, Professor & Head, Department of Dermatology, DMCH , Ludhiana
Co-supervisor(s)	Dr Sukhjot Kaur, Associate Professor, Department of Dermatology, DMCH, Ludhiana Dr. Rupesh Chaudhary, Professor, Department of Psychiatry, DMCH, Ludhiana
Institution	Dayanand Medical College and Hospital, Ludhiana
University	Baba Farid University of Health Sciences, Faridkot

Introduction: Dermatophytosis, commonly referred as ringworm, is superficial infection of skin & its appendages caused by group of fungi known as dermatophytes .In the recent times, its becoming difficult to treat dermatophytosis with conventional treatment, therefore becoming frustrating for both the patient and treating doctor. Apart from the physical component, it effects life of patient in many ways like financially, mentally and socially which makes it important to study its impact on quality of life of patients.

Aim of Study: To assess effect of chronic & recurrent dermatophytosis on quality of life of patients

Materials & Methods: This is an observational study. 150 clinically diagnosed and consenting cases of recurrent & chronic cases of dermatophytosis attending OPD of dermatology at Dayanand Medical College, Ludhiana will constitute study material. Dermatological life quality index will be assessed using DLQI, Skindex 16.

Clinical Significance: It will help in better understanding of the disease condition and the mindset of the patients hence leading to proper cure.

Keywords: Dermatophytosis, Chronic, Recurrent

(Signature)	(Signature)	(Signature)	(Signature)	(Signature)
Candidate	Co-supervisor	Co-supervisor	Supervisor	Principal

CERTIFICATE OF FACILITIES AVAILABLE

This is to certify that the facilities for work on the subject of thesis titled **"ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS"** exist in the Department of Dermatology, DMC&H, Ludhiana and will be provided to the candidate. We will see that the data being included in the thesis is genuine and is collected by the candidate herself under our supervision and guidance.

Supervisor

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Professor & Head
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Co-Supervisor's

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Dr. Sukhjot Kaur
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Place : Ludhiana

Date : 16/9/22

APPROVAL PROFORMA
BY RESEARCH & ETHICAL COMMITTEE
DAYANAND MEDICAL COLLEGE & HOSPITAL, LUDHIANA

Name of candidate	Dr. Divjot Kaur Arora
Department	Dermatology
Topic of Thesis	ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS
Likely date of appearing in PG examination	May/ June, 2024
Date of enrollment	28th February, 2022
Name of Head of Department	Dr. Sunil K Gupta
1) Supervisor **2) Co-Supervisor(s)**	Dr. Sunil K Gupta Dr. Sukhjot Kaur Dr. Rupesh Chaudhary
Signature of Members of Research Committee with Stamp	**Signature of Members of Ethics Committee with Stamp**
Dr. Harpreet Kaur (Professor & Head, Pathology)	Mr. R K Sharma (Legal Expert)
Dr. Jaspal Singh (Professor & Head, Surgery)	Dr. Ramit Mahajan (Associate Professor, Gastroenterology)
Dr. Dinesh Gupta (Professor & Head, Medicine)	Dr. Anu Sharma (Professor, Anatomy)
Dr. Sandeep Kaushal (Dean Academics & Professor & Head, Pharmacology)	Dr. Sandeep Kaushal (Dean Academics & Professor & Head, Pharmacology)
Dr. Gurpreet S Wander (Vice Principal)	Dr. Gurpreet S Wander (Vice Principal & Professor & Head, Cardiology)
	Dr. Gagandeep Singh (Secretary, Ethics Committee Professor & Head, Neurology)

Approved: Yes / ~~No~~

Dr. Sandeep Puri
Chairperson
Research Committee
Chairperson
Research Committee

Approved: Yes / ~~No~~

Prof. Arvind Malhotra
Chairperson
Ethics Committee
Chairperson
Ethics Committee

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

PROFORMA FOR REGISTRATION OF SUBJECT FOR DISSERTATION

1	NAME OF THE CANDIDATE AND ADDRESS	Dr. Divjot Kaur Arora B-580, Ranjit Avenue, Amritsar, Punjab
2	NAME OF THE INSTITUTE	Dayanand Medical College and Hospital, Ludhiana
3	COURSE OF STUDY AND SUBJECT	M.D. Dermatology, Venerology & Leprology
4	DATE OF ADMISSION OF COURSE	28 February,2022
5	TITLE OF THE TOPIC	ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS

6. BRIEF RESUME OF THE INTENDED WORK

6.1 NEED FOR THE STUDY

Dermatophytosis, commonly referred as ringworm, is superficial infection of skin & associated structures caused by group of fungi which are all together known as dermatophytes. In recent times, there has been an increase in incidence of occurrence of dermatophytosis not in India only but also globally & dermatophytic infections have become one of the most common dermatoses with infectious etiology presenting in dermatology OPD throughout country. Comparison of studies done on superficial fungal infections in different cities of the country during different time frames have revealed an increasing trend of dermatophytosis.[1-3] India, being a tropical country, has a climate that is very conducive for superficial fungal infections. The reported prevalence of dermatophytosis in India ranges from 36.6 to 78.4%.[4] Overcrowded areas, areas with high humidity, unhygienic conditions are the other main factors which contribute to increased incidence of dermatophytosis. The intensity of infection can range from mild to moderate to severe depending upon various factors like host immunity, virulence of the infecting species, site involved and environmental factors.

More & more cases of chronic, recurrent cases dermatophytosis are coming forth in dermatology OPD which are unresponsive to treatment. It has been observed recently that dermatophytosis tends to be prolonged and persistent which can be ascribed to various factors like over the counter availability and prescription of topical steroid creams for dermatophytosis by underqualified people, improper use of antifungal agents, changes in the trends in terms of dressing (wearing tight hugged clothes, jeans) , etiological agent (increased prevalence of trichophyton mentagrophytes) and emergence of resistance.[5] Erratic use of readily available over the counter topical steroids in the form of creams, gels, and lotions and fixed-dose combination drugs, used for symptomatic relief from skin infections are further adding up to the problem of resistance. Indiscriminate use of these topical steroids and irrational topical fixed-drug combinations can alter the clinical

presentation, evoke an irritant response, and contribute to the resistance among fungi ,hence, resulting in recurrences, & increased chronicity. Chronic and recurrent dermatophytic infections cause a huge distress to the patients socially, emotionally, mentally and financially.

Despite the fact that dermatophytosis is not life-threatening and does not lead to any functional impairment, it effects quality of life of the patients in such a way which has very detrimental effects on interpersonal relationship of patients with other people. Patients usually tend to have a low self confidence, shame, low self-esteem, and social timidity. The most common symptom in patients with dermatophytosis is that of itching which also adds up to be the number one among the various factors affecting quality of life. The increased resistance to antifungals resulting in intractable cases further adds up to the burden of morbidity. The multiple aspects of the dermatophytosis are now being studied and discussed on all national and state-level dermatological forums.[6] The aim of this study is to investigate the influence of dermatophytosis on quality of life (QoL) in affected patients and identifying the risk factors associated therein.

Health related QoL measurement assesses burden of illness and allows assessment of the outcomes of medical treatment.[7] Assessment of disease severity should include clinical, psychological , financial & social factors. A treatment should be considered ineffective until it improves QoL in patients.[8] Due to such high prevalence, widespread dermatophytosis now constitutes a considerable health issue which can have significant negative psychosocial impact, and thus can compromise the quality of life significantly. In current scenario for dermatophytoses, QoL measurements should be an integral part of clinical trials conducted to judge efficacy of a treatment. Literature regarding QoL in dermatophytosis, barring onychomycosis is scarce and none so ever for chronic dermatophytosis.[9,10] Hence this study was planned to determine the QoL in patients having chronic dermatophytosis with the help of DLQI.

In the last few years , QoL has become an important aspect of overall well being of individuals . Therefore , the current study was undertaken to assess the QoL in patients suffering from chronic & recurrent dermatophytosis to understand the complete effect it has on both the mind and body of patients.

6.2 REVIEW OF LITERATURE

The etiologic agents of the dermatophytoses are classified into different genera-Epidermophyton, Microsporum, and Trichophyton, of anamorphic class Hyphomycetes of the Deuteromycota (Fungi imperfectii) The descriptions of the genera essentially follow the classification scheme of Emmons [11] on the bases of conidial morphology and formation of conidia and are updated following the discovery of new species.[12-14] Different genera and their descriptions are given below.

Epidermophyton spp. The type species is Epidermophyton floccosum. The macroconidia are broad with typically smooth, thin to moderately thick walls. They are numerous and can be present singly or in clusters. This spp. doesnot produce microconidia. Only E.floccosum is pathogenic out of the two known spp of Epidermophyton.

Microsporum spp. The type species is Microsporum audouinii. Macroconidia are characterized by the presence of rough walls & are blunt, club shaped multicelled macroconidia. The macroconidia may have thin or moderately thick to very thick walls.

Trichophyton spp. The type species is Trichophyton tonsurans. Macroconidia, when present, have smooth, usually thin walls, borne singly or in clusters, and may get elongated and become pencil shaped, fusiform, or cylindrical. Microconidia are usually more in number than macroconidia, may be globose, pyriform or clavate in shape, or sessile or stalked.

Since the very beginning, infections caused by dermatophytes (ringworm) have been named according to the anatomic locations involved by the fungus designating the body site after the word tinea, e.g., tinea capitis for ringworm of the scalp. The clinical manifestations are as follows: (i) tinea barbae (ringworm of the beard and mustache); (ii) tinea capitis (scalp, eyebrows, and eyelashes); (iii) tinea corporis (iv) tinea cruris (groin); (v) tinea facei (face) (vi) tinea pedis (feet) ; (vii) tinea manuum (hands) ; and (viii) tinea unguium (nails). Different

anatomic sites may be infected by a single dermatophyte species, and different species may produce clinically identical lesions.

Tinea barbae, an infection of the bearded area, may range from being mild and superficial to a very severe inflammatory pustular folliculitis like presentation.

Tinea capitis, an infection of the scalp, is mainly caused by Microsporum and Trichophyton. The infection may range from mild, almost subclinical, with mild erythema and a few patchy areas of scaling to a highly inflammatory reaction with folliculitis, kerion formation, and extensive areas of scarring and alopecia,which maybe accompanied by fever, malaise, and regional lymphadenopathy. Both the skin surface and hairs are involved. Infection of the hair may be described as ectothrix (sheath of arthroconidia formed on the outside of the hair shaft) or endothrix (arthroconidia formed within the hair shaft).

Ringworm of the body i.e. Tinea corporis usually involving the trunk, shoulders, or limbs, can be caused by any dermatophyte. The infection may be mild or severe depending on various factors like host immunity, duration of disease etc, appearing as annular, scaly patches with sharply marginated, raised erythematous vesicular borders.

Groins, perianal, and perineal areas, and sometimes the upper thighs, are the areas usually involved mainly in adult men. T. rubrum and E. floccosum are the most frequent etiologic agents. Lesions are erythematous to tanny brown and covered with thin, dry scales. Lesions in these cases are usually bilateral ,asymmetric , with a raised, sharply marginated border that maybe studded with small vesicles.

Tine manuum may involve palmar and interdigital areas, commonly presenting as unilateral diffuse hyperkeratosis with accentuation of creases on flexural surface. Most of these infections are caused by T. rubrum.

The soles and toe webs of feet are most commonly involved in tinea pedis. The most common clinical manifestation is in form of intertrigo, which presents with maceration, peeling, and fissuring, mainly in the spaces between the fourth and fifth toes. Another common presentation is the chronic, squamous, hyperkeratotic type in which

fine silvery scales cover pinkish skin of the soles, heels, and sides of the foot. An acute inflammatory condition, characterized by the formation of vesicles, pustules, and sometimes bullae, is most frequently caused by T. mentagrophytes. Agents causing chronic tenia pedis are T. rubrum, T. mentagrophytes var. interdigitale, and E. floccosum

Tinea unguium refers to invasion of nail plate by the dermatophyte whereas infection of the nail by nondermatophytic fungi is called onychomycosis. Term Onychomycosis is often used as a general term for a nail infection.

Colonization of dermatophytes is characteristically limited to the dead keratinized tissue of the stratum corneum and may result in either a mild or intense inflammatory reaction. Although the cornified layers of the skin lack a specific immune system to recognize this infection and get rid itself of it on its own, however, both humoral and cell-mediated reactions and specific and nonspecific host defense mechanisms get activated and eventually eliminate the fungus, preventing invasion of deeper viable tissue.

The classical studies of Jones and coworkers [15-18] in human volunteers suggested that CMI(Cell mediated immunity) is the major immunologic defense in clearing dermatophyte infections. Experimentally infected volunteers deliberately infected with T. mentagrophytes who developed CMI associated with intense inflammation with T-cell-mediated DTH to the trichophytin skin test (glycoprotein skin test antigen) achieved a mycologic cure. A protective immunologic memory was indicated by the rapid inflammatory response and elimination of the fungus on reinoculation and a continued positive trichophytin test. A single volunteer, who was atopic, characterized another group of individuals having a second type of reaction: i.e., development of a chronic or recurrent infection, high immediate-type (anti-Trichophyton IgE mediated) hypersensitivity, and low or waning DTH to trichophyton [16]. These individuals, however, had a normal response to other skin test antigens, indicating a selective or

induced immune deficit that was found in 10 to 20% of the population in temperate climates.[18]

Management of Tenia corporis-Topical agents are frequently applied to speed the resolution of uncomplicated lesions. A variety of drugs are effective, including amorolfine; azoles such as miconazole, clotrimazole, econazole, ketoconazole, allylamines such as terbinafine and hydroxypyridones such as ciclopirox olamine . The combination of clotrimazole and beta-methasone dipropionate is useful for early relief of inflammatory reactions caused by dermatophytoses . In cases of widespread tinea corporis, systemic therapy may be indicated. Griseofulvin has long been used for this purpose, although cure rates of only 60% only have been noted.[19] Griseofulvin-resistant isolates have been discovered recently. Ketoconazole has been used and has a lower relapse rate [20] but a greater chance of inducing side effects, such as hepatotoxicity and depressed adrenal activity.[21] In recent times, itraconazole and terbinafine are being used widely for this purpose. Itraconazole given as a single dose of 100 mg before breakfast has been shown to eliminate T. rubrum and T. mentagrophytes in cases of tinea corporis as well as tinea cruris, tinea pedis, and tinea manuum.[22] It is of greater efficacy than griseofulvin in most applications in tinea corporis, tinea cruris, tinea manuum, and tinea pedis.[23]

Due to such high prevalence & increasing incidence of chronicity & resistance in dermatophytosis, various studies have been conducted at both national & international level to assess the impact of recurrent dermatophytosis on quality of life of people using DQLI (Dermatological quality of life index). The DLQI questionnaire consists of 10 leading questions related to symptoms, embarrassment, shopping and daily activities, clothing pattern, social and leisure activities, sporting, work or study activities, sexual difficulty and treatment.

The maximum score for each of 10 questions is from 0 to 3, (DLQI questionnaire in which question 1and 9 referred to the physiological effects, while the remaining (2 to 10, except 9) referred to emotional

and social effects of the disease.) making maximum possible score of 30. The outcome of every patients' Dermatology life quality index (DLQI) after participating in 10 questionnaire, score bandings for different patients are then collected.

A study conducted by Carla Andrea Avelar Pires et al at Dermatology service of Universidade do Estado do Pará, Brazil, record of 145 patients who were diagnosed with dermatophytosis was surveyed. Data was collected and subsequently. Information regarding epidemiology, clinical features of the disease and the therapy given was taken into consideration from July 2010 to September 2012 which provided evidence of the importance of recurrent analysis of the epidemiological profile of dermatophytoses to enable correct therapeutic and preventive management of these conditions, which had significant clinical consequences, producing chronic, difficult-to-treat lesions that could decrease patient quality of life and could cause disfigurement.[24]

In study conducted by Nibedita Patrao et al. in 2019, a total of 294 patients were taken into consideration with 255 patients in the age range of 18-40 years and 39 patients in the range of 41-60 years. There were 156 females and 138 males. The effect on QoL was estimated to be moderate [males, ≤10% body surface area (BSA) involvement, ≤6 months duration, low and medium socio-economic status (SES)] to very large (females, >10% BSA involvement, >6 months duration, high SES, and medium and high educational status) according to the DLQI scoring and correlated strongly with the disability scoring in 5D-pruritus scale ($r = 0.802$, $P < 0.0001$).[25]

A study conducted by Sabha Mushtaq et al, a total of 348 patients were studied. The mean SD DLQI score in our study was 13.4+7.3. Dermatophytosis was found to have a very large effect on the QoL in majority (44.8%) of patients in this study. DLQI questions relating to symptoms and feelings and daily activity had the highest impact on patients. The DLQI score was significantly affected by the number of

sites involved (P < 0.001), body surface area (P < 0.001) and the severity of symptoms.[26]

Another study conducted by Varshney AP et al in which Total number of cases collected was 263. They also included 137 controls. Among cases there were 71.86% males and 28.14% female while controls had 63.5% males and 36.5% females. Mean DLQI of cases was 14.28+/-5.16 and controls was 11.56+/-3.60. DLQI distribution of cases - 162(61.6%) had very large effect, 64(24.33%) had moderate effect, and 32(12.17%) had extremely large effect on DLQI. Domains of Symptoms and feelings (72.67%), work and school related activities (69%) and treatment related problems (67.67%) posed maximum impairment. Quality of life derangement increased significantly with presence of lesions on both exposed and non exposed sites and increase in body surface area.[27]

6.3 AIMS AND OBJECTIVES OF THE STUDY

1. Assessment of quality of life in patients with chronic & recurrent dermatophytosis.

7. MATERIALS AND METHODS

This is an observational study. 150 clinically diagnosed and consenting cases of recurrent and chronic cases of dermatophytosis attending OPD of dermatology & IPD at Dayanand Medical College, Ludhiana will constitute study material.

7.1 Source of Data

Clinically diagnosed cases of dermatophytosis attending outpatient & inpatient in Department of Dermatology of Dayanand Medical College and hospital, Ludhiana. History will be taken and detailed clinical examination will be done. Fungal smear for KOH will be made whenever deemed necessary but in cases KOH comes out to be negative but patient clinically has dermatophytosis, treatment will be given .

7.2 METHOD OF COLLECTION OF DATA

INCLUSION CRITERIA

Patient above 16 years of age having chronic and recurrent dermatophytosis.

Patients willing to participate

EXCLUSION CRITERIA-

- Patients not willing to participate
- Pregnant and lactating females
- Patient suffering from any other disease along with dermatophytosis.

Methodology:

Patients who have disease for 6 months to 1 year duration, with or without recurrence and those with recurrence of the infection 6 weeks after stopping adequate antifungal therapy will be considered as chronic and recurrent respectively. Informed consent will be taken. Thorough clinical examination will be done and skin scrapings for KOH will be done wherever required.

Patient will be evaluated for response after 3 weeks of treatment either clinically or telephonically and patient will thus be classified into complete, partial or a non responder.

Detailed history of patients regarding duration & episodes of disease, occupation, history of any previous treatment will be taken.

Dermatological life quality index will be assessed using DLQI, Skindex-16.

The dermatology life quality index (DLQI) is a ten-question questionnaire used to measure the impact of skin disease on quality of life of an affected person. It is designed for people aged 16 years and more with a recall period of 7 days.

It is a detailed self-explanatory questionnaire and will be made available in 3 languages ie -English, Punjabi & Hindi for patients' convenience. It will be handed over to patient too be filled by the patient to be completed in 3-4 mins.

Skindex-16 is currently available in English only.It will be translated to patients verbally and then data will be recorded

Data collected from proforma will be analysed statistically to see impact of dermatophytosis on quality of life of patients.

Duration of Study/ Number of Cases- 150

OUTCOME: To assess effect of chronic & recurrent dermatophytosis on quality of life of patients.

STATISTICAL ANALYSIS

Data will be described in terms of range; mean ± standard deviation (± SD), frequencies (number of cases) and relative frequencies (percentages) as appropriate. All statistical calculations will be done using (Statistical Package for the Social Science) SPSS 21 version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

7.3 DOES THE STUDY REQUIRE ANY INVESTIGATIONS OR INTERVENTIONS TO BE CONDUCTED ON PATIENTS OR OTHER HUMANS OR ANIMALS? IF SO, PLEASE DESCRIBE BRIEFLY.

No.

7.4 HAS ETHICAL CLEARANCE BEEN OBTAINED FROM YOUR INSTITUTION IN CASE OF 7.3?

Yes, Attached herewith.

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PROFORMA

Serial no : MRD : Date:

Name: Age: Sex:

Occupation:

Chief Complaints: Itching: Yes/No

Redness: Yes/No

Discoloration: Yes/No

H/o any treatment taken previously:

- Oral antifungals: Yes/No

  Terbinafine/Griseofulvin/fluconazole/itraconazole
- Topical antifungals : Yes/No
- Topical Steroids : Yes/No

Satisfaction with treatment: Yes/No

Sites involved:

1.Scalp

2.Beard

3. Face

4. Body

Signature of Candidate Signature of Supervisor

5.Hands

6.Nails

7.Groins

8. Feet

KOH done: Yes/No If yes: Positive/Negative

F/U after 3 weeks: Complete responder

Partial responder

Non responder

Signature of Candidate Signature of Supervisor

During the past week, how often have you been bothered by:	Never Bothered ↓			•			Always Bothered ↓
1. Your skin condition **itching**	☐0	☐1	☐2	☐3	☐4	☐5	☐6
2. Your skin condition **burning** or **stinging**	☐0	☐1	☐2	☐3	☐4	☐5	☐6
3. Your skin condition **hurting**	☐0	☐1	☐2	☐3	☐4	☐5	☐6
4. Your skin condition **being irritated**	☐0	☐1	☐2	☐3	☐4	☐5	☐6
5. The **persistence / reoccurrence** of your skin condition.	☐0	☐1	☐2	☐3	☐4	☐5	☐6
6. **Worry** about your skin condition (For example: that it will spread, get worse, scar, be unpredictable, etc)	☐0	☐1	☐2	☐3	☐4	☐5	☐6
7. The **appearance** of your skin condition.	☐0	☐1	☐2	☐3	☐4	☐5	☐6
8. **Frustration** about your skin condition	☐0	☐1	☐2	☐3	☐4	☐5	☐6
9. **Embarrassment** about your skin condition	☐0	☐1	☐2	☐3	☐4	☐5	☐6
10. **Being annoyed** about your skin condition	☐0	☐1	☐2	☐3	☐4	☐5	☐6
11. **Feeling depressed** about your skin condition. . . .	☐0	☐1	☐2	☐3	☐4	☐5	☐6
12. The effects of your skin condition on your **interactions with others** (For example: interactions with family, friends, close relationships, etc)	☐0	☐1	☐2	☐3	☐4	☐5	☐6
13. The effects of your skin condition on your **desire to be with people**	☐0	☐1	☐2	☐3	☐4	☐5	☐6
14. Your skin condition making it hard to **show affection**. .	☐0	☐1	☐2	☐3	☐4	☐5	☐6
15. The effects of your skin condition on your **daily activities**.	☐0	☐1	☐2	☐3	☐4	☐5	☐6
16. Your skin condition making it hard to **work or do what you enjoy**.	☐0	☐1	☐2	☐3	☐4	☐5	☐6

Have you answered every item? Yes ☐ No ☐

Signature of Candidate

Signature of Supervisor

DERMATOLOGY LIFE QUALITY INDEX

DLQI

Hospital No: Date:
Name: Score:
Address: Diagnosis:

The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick ☑ one box for each question.

1.	Over the last week, how **itchy**, **sore**, **painful** or **stinging** has your skin been?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	
2.	Over the last week, how **embarrassed** or **self conscious** have you been because of your skin?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	
3.	Over the last week, how much has your skin interfered with you going **shopping** or looking after your **home** or **garden**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
4.	Over the last week, how much has your skin influenced the **clothes** you wear?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
5.	Over the last week, how much has your skin affected any **social** or **leisure** activities?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
6.	Over the last week, how much has your skin made it difficult for you to do any **sport**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
7.	Over the last week, has your skin prevented you from **working** or **studying**?	Yes No	❒ ❒	 Not relevant ❒
	If "No", over the last week how much has your skin been a problem at **work** or **studying**?	A lot A little Not at all	❒ ❒ ❒	
8.	Over the last week, how much has your skin created problems with your **partner** or any of your **close friends** or **relatives**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
9.	Over the last week, how much has your skin caused any **sexual difficulties**?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒
10.	Over the last week, how much of a problem has the **treatment** for your skin been, for example by making your home messy, or by taking up time?	Very much A lot A little Not at all	❒ ❒ ❒ ❒	 Not relevant ❒

Please check you have answered EVERY question. Thank you.

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ਚਮੜੀ ਵਿਗਿਆਨ ਜੀਵਨ ਗੁਣਵੱਤਾ ਸੂਚਕ

ਡੀਐਲਕਯੂਆਈ

ਹਸਪਤਾਲ ਸੰਖਿਆ: ਮਿਤੀ: ਅੰਕ:

ਨਾਂ: ਨਿਦਾਨ:

ਪਤਾ:

ਇਸ ਪ੍ਰਸ਼ਨਾਵਲੀ ਦਾ ਉਦੇਸ਼ ਇਹ ਮਾਪਣਾ ਹੈ ਕਿ ਪਿਛਲੇ ਹਫਤੇ ਤੁਹਾਡੀ ਚਮੜੀ ਦੀ ਬਿਮਾਰੀ ਨੇ ਤੁਹਾਡੇ ਜੀਵਨ ਨੂੰ ਕਿਹਨਾਂ ਪ੍ਰਭਾਵਿਤ ਕੀਤਾ ਹੈ। ਕਿਰਪਾ ਕਰਕੇ ਹਰ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਈ ਇੱਕ ਖਾਨੇ ਵਿੱਚ ਨਿਸ਼ਾਨ ਲੱਗਾਓ।

1.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ 'ਤੇ ਕਿੰਨੀ **ਖਾਰਸ਼, ਸੋਜ, ਦਰਦ** ਜਾਂ **ਚੋਭ** ਹੋਈ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	
2.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਸੀਂ ਆਪਣੀ ਚਮੜੀ ਕਾਰਣ ਕਿੰਨ੍ਹੇ **ਸ਼ਰਮਿੰਦਾ** ਜਾਂ **ਆਤਮ-ਸਚੇਤ** ਰਹੇ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	
3.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਤੁਹਾਡੇ **ਖ਼ਰੀਦਾਰੀ** ਲਈ ਜਾਣ ਜਾਂ ਆਪਣੇ **ਘਰ** ਜਾਂ **ਬਾਗ** ਦੀ ਦੇਖਭਾਲ ਕਰਨ ਵਿੱਚ ਕਿਹਨਾਂ ਦਖਲ ਦਿੱਤਾ**?**	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
4.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਤੁਹਾਡੇ ਰਾਹੀਂ ਪਾਉਣ ਜਾਣ ਵਾਲੇ **ਕੱਪੜਿਆਂ** ਉੱਤੇ ਕਿਹਨਾਂ ਅਸਰ ਪਾਇਆ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
5.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਕਿਸੇ **ਸਮਾਜਕ** ਜਾਂ **ਖਾਲੀ ਸਮੇਂ** ਦੀਆਂ ਸਰਗਰਮੀਆਂ ਨੂੰ ਕਿਹਨਾਂ ਪ੍ਰਭਾਵਿਤ ਕੀਤਾ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
6.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਤੁਹਾਡਾ ਕਿਸੇ **ਖੇਲ** ਵਿੱਚ ਜਾਣਾ ਕਿਹਨਾਂ ਔਖਾ ਬਣਾ ਦਿੱਤਾ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
7.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਕੀ ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਤੁਹਾਨੂੰ **ਕੰਮ ਕਰਨ** ਜਾਂ **ਪੜ੍ਹਨ** ਤੋਂ ਰੋਕਿਆ?	ਹਾਂ ਨਹੀਂ	☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
	ਜੇਕਰ "ਨਹੀਂ", ਤਾਂ ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ **ਕੰਮ** ਤੇ ਜਾਂ **ਪੜ੍ਹਦੇ** ਹੋਇਆਂ ਕਿਹਨੀ ਪਰੇਸ਼ਾਨੀ ਪੈਦਾ ਕੀਤੀ?	ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐	
8.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਤੁਹਾਡੇ **ਭਾਗੀਦਾਰ** ਜਾਂ ਤੁਹਾਡੇ ਕਿਸੇ ਨੇੜਲੇ **ਮਿੱਤਰ** ਜਾਂ **ਰਿਸ਼ਤੇਦਾਰ** ਦੇ ਨਾਲ ਕਿਹਨੀ ਪਰੇਸ਼ਾਨੀ ਪੈਦਾ ਕੀਤੀ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
9.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਨੇ ਕਿਹਨੀਆਂ **ਯੌਨ ਪਰੇਸ਼ਾਨੀਆਂ** ਪੈਦਾ ਕੀਤੀਆਂ ਹਨ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐
10.	ਪਿਛਲੇ ਹਫਤੇ ਵਿੱਚ, ਤੁਹਾਡੀ ਚਮੜੀ ਲਈ **ਇਲਾਜ** ਤੁਹਾਡੇ ਲਈ ਕਿਹਨੀ ਵੱਡੀ ਪਰੇਸ਼ਾਨੀ ਬਣਿਆ, ਮਿਸਾਲ ਵਜੋਂ, ਤੁਹਾਡੇ ਘਰ ਨੂੰ ਗੰਦਾ ਬਣਾਕੇ ਜਾਂ ਸਮਾਂ ਲੈਕੇ?	ਬਹੁਤ ਜਿਆਦਾ ਬਹੁਤ ਥੋੜ੍ਹੀ ਜਿਹੀ ਬਿਲਕੁਲ ਨਹੀਂ	☐ ☐ ☐ ☐	ਸੰਬੰਧਤ ਨਹੀਂ ਹੈ ☐

ਕਿਰਪਾ ਕਰਕੇ ਜਾਂਚ ਕਰੋ ਕਿ ਤੁਸੀਂ ਹਰ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦਾ ਉੱਤਰ ਦੇ ਦਿੱਤਾ ਹੈ। ਤੁਹਾਡਾ ਧੰਨਵਾਦ।

©ਏ ਵਾਈ ਫਿਨਲੇ, ਜੀ ਕੇ ਖਾਨ, ਅਪ੍ਰੈਲ 1992, ਇਹ ਲਾਜਮੀ ਤੌਰ ਤੇ ਲੇਖਕਾਂ ਦੀ ਆਗਿਆ ਤੋਂ ਬਿਨਾਂ ਨਕਲ ਨਹੀਂ ਕੀਤਾ ਜਾਣਾ ਚਾਹੀਦਾ ਹੈ।

त्वचारोग जीवन गुणवत्ता सूची

डीएलक्यूआई

अस्पताल क्रमांक : दिनांक : स्कोर :

नाम : रोग निदान :

पता :

इस प्रश्नोत्तरी का उद्देश्य यह नापना है कि आपकी त्वचा की परेशानी ने गत सप्ताह में आपके जीवन पर कितना प्रभाव डाला है. कृपया हर प्रश्न के लिए एक बाक्स में टिक करें.

१.	गत् सप्ताह, आपकी त्वचा में कितनी **खुजली, पीड़ा, दर्द** या **चुभन** लग रहा था?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	
२.	गत् सप्ताह, अपनी त्वचा के कारण आप कितने **शर्मसार** या **स्व चैतन्य** हुए?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	
३.	गत् सप्ताह, आपकी त्वचा ने आपकी **खरीदारी, घर या गार्डन** की देखभाल के काम पर कितना प्रभाव डाला?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
४.	गत् सप्ताह, आपकी त्वचा ने आपके **कपड़े** पहनने पर कितना प्रभाव डाला?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
५.	गत् सप्ताह, आपकी त्वचा ने आपके **सामाजिक जीवन** या **फुर्सत के समय** की गतिविधियों पर कितना प्रभाव डाला?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
६.	गत् सप्ताह, आपकी त्वचा ने आपके **खेलकूद** के लिए कितनी मुश्किलें खड़ी कीं?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
७.	गत् सप्ताह, आपकी त्वचा ने आपके **काम** या **पढ़ाई** में कोई रुकावट डाली?	हां नहीं	☐ ☐	लागू नहीं ☐
	इसका उत्तर अगर नहीं है, तो गत् सप्ताह आपकी त्वचा ने आपके **काम** या **पढ़ाई** में कितनी परेशानी खड़ी की ?	बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐	
८.	गत सप्ताह, आपकी त्वचा ने आपके **पार्टनर** या किसी भी **करीबी मित्र** या **रिश्तेदार** के लिए कितनी परेशानी खड़ी की	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
९.	गत् सप्ताह, आपकी त्वचा के कारण कितनी **सेक्सुअल मुश्किलें** आईं?	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐
१०.	गत सप्ताह, आपकी त्वचा के **उपचार** ने आपके लिए कितनी मुश्किलें बढ़ाई, उदाहरण के लिए घर को अस्त–व्यस्त बनाना, या समय का नुकसान करना.	बहुत ज्यादा बहुत थोड़ा बिलकुल नहीं	☐ ☐ ☐ ☐	लागू नहीं ☐

कृपया देख लें कि आपने हर प्रश्न का उत्तर दे दिया है. धन्यवाद.

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INFORMED PATIENT CONSENT

Date: _____

I_____ D/o,W/o,S/o_____.

am willing to participate in the study **"ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS"** The procedure with its complications has been explained to me in local vernacular language. I have fully understood that no special tests and extra expenditure in any form, merely for the purpose of thesis is being carried out. I am free to opt out the study any time without assigning any reason.

…….. ……..

Signature of the Witness Signature of the patient

Name:

Signature of Candidate **Signature of Supervisor**

मरीज अनुमति फार्म

तिथि _____

मैं _____ पत्नी/पुत्र/पुत्री _____

निवासी _____

इस शोधकार्य "**ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS"** में भाग लेने के लिए सहमत हूँ। मैं इस शोधकार्य में भाग लेने के लिए अपनी स्वेच्छा से तैयार हूँ। मैं पुष्टि करता/करती हूँ की यह स्वीकृति देने के लिए मुझे कोई आर्थिक प्रलोभन नहीं दिया गया और न ही दबाव डाला गया है। मुझे इस शोधकार्य का उद्देश्य स्पष्ट कर दिया गया है और मुझे यह विश्वास है की यह विज्ञान और मानवता के लाभ के लिए है। मुझे इस शोधकार्य में होने वाले जोखिम के बारे में समझा दिया गया है और मेरी समझ में यह जोखिम बहुत मामुली है।

मैं इस शोधकार्य में भाग लेने के सम्बन्ध में किसी भी समय अपनी अस्वीकृति व्यक्त कर सकता/सकती हूँ और मेरे अस्वीकृति व्यक्त करने का मेरे इलाज पर कोई प्रभाव नहीं पड़ेगा।

_____	_____
गवाह के हस्ताक्षर	रोगी के हस्ताक्षर/अंगूठे का निशान
नाम:	नाम:

_____

अन्वेषक के हस्ताक्षर

_____

विद्यार्थी के हस्ताक्षर

ਮਰੀਜ਼ ਰਜ਼ਾਮੰਦੀ ਫਾਰਮ

ਮਿਤੀ_____

ਮੈ_____ਪਤਨੀ/ਪੁੱਤਰ/ਪੁੱਤਰੀ_____

ਵਾਸੀ _____

“ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC & RECURRENT DERMATOPHYTOSIS” ਤੇ ਚਲ ਰਹੀ ਖੋਜ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਰਜ਼ਾਮੰਦ ਹਾਂ। ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਮੈ ਆਪਣੀ ਮਰਜ਼ੀ ਨਾਲ ਤਿਆਰ ਹਾਂ। ਮੈ ਇਹ ਦਸਣਾ ਚਾਹੁੰਦਾ ਹਾਂ/ ਚਾਹੁੰਦੀ ਹਾਂ ਕੇ ਇਹ ਰਜ਼ਾਮੰਦੀ ਦੇਣ ਵਾਸਤੇ ਮੈਨੂ ਕਿਸੇ ਵੀ ਤਰਾਂ ਦਾ ਲੋਭ-ਲਾਲਚ ਨਹੀ ਦਿੱਤਾ ਗਿਆ ਅਤੇ ਨਾ ਹੀ ਕੋਈ ਦਬਾ ਪਾਇਆ ਗਿਆ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਦਾ ਮਨੋਰਥ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਭਰੋਸਾ ਦਵਾਇਆ ਗਿਆ ਹੈ ਕੇ ਇਹ ਖੋਜ ਵਿਗਿਆਨ ਅਤੇ ਮਾਨਵਤਾ ਦੀ ਭਲਾਈ ਲਈ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਵਿਚ ਹੋਣ ਵਾਲੇ ਖਤਰੇ ਬਾਰੇ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਯਕੀਨ ਹੈ ਕੇ ਇਹ ਖਤਰਾ ਬਹੁਤ ਮਾਮੂਲੀ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਦਾ ਢੰਗ – ਤਰੀਕਾ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ।

ਮੈ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਬਾਰੇ ਆਪਣੀ ਰਜ਼ਾਮੰਦੀ ਕਿਸੇ ਵੀ ਸਮੇ ਵਾਪਸ ਲੈ ਸਕਦਾ ਹਾਂ/ ਸਕਦੀ ਹਾਂ ਅਤੇ ਮੇਰੀ ਰਜ਼ਾਮੰਦੀ ਵਾਪਸ ਲੈਣ ਦਾ ਮੇਰੇ ਇਲਾਜ ਤੇ ਕੋਈ ਅਸਰ ਨਹੀ ਹੋਵੇਗਾ।

_____ _____

ਗਵਾਹ ਦੇ ਹਸਤਾਖਰ ਮਰੀਜ਼ ਦੇ ਹਸਤਾਖਰ

ਮਿਤੀ_____ ਮਿਤੀ_____

ਪਤਾ _____ ਪਤਾ _____

_____

ਨਿਰੀਖਕ ਦੇ ਹਸਤਾਖਰ

_____

ਸਿਖਿਆਰਥੀ ਦੇ ਹਸਤਾਖਰ